

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

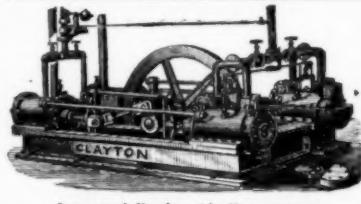
AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

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BALTIMORE, FEBRUARY 23, 1884.

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VOL. V. NO. 2.

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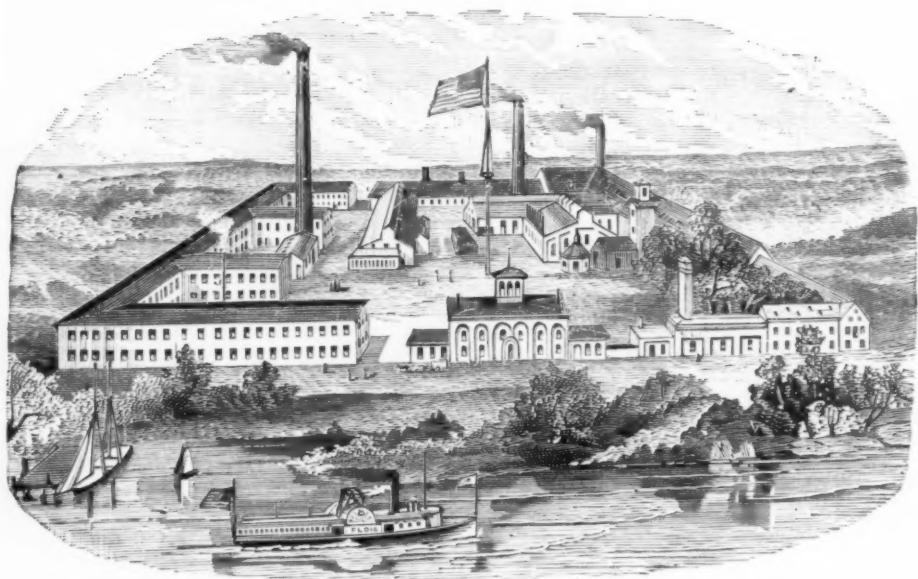
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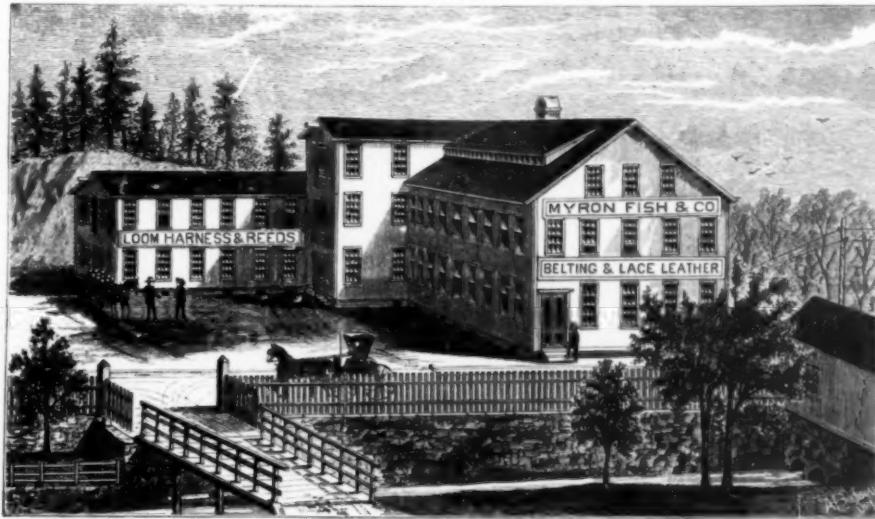
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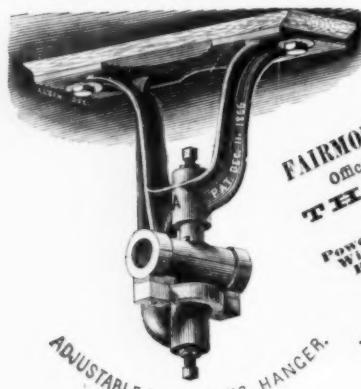
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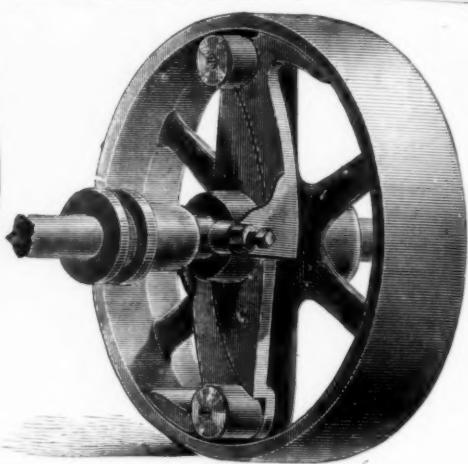
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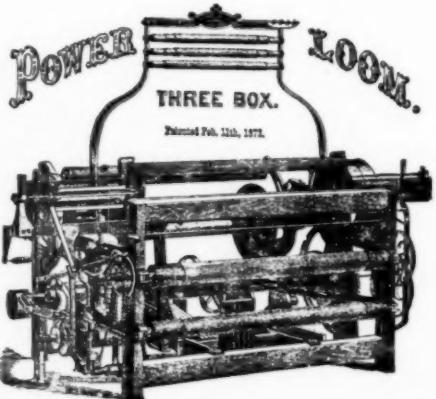
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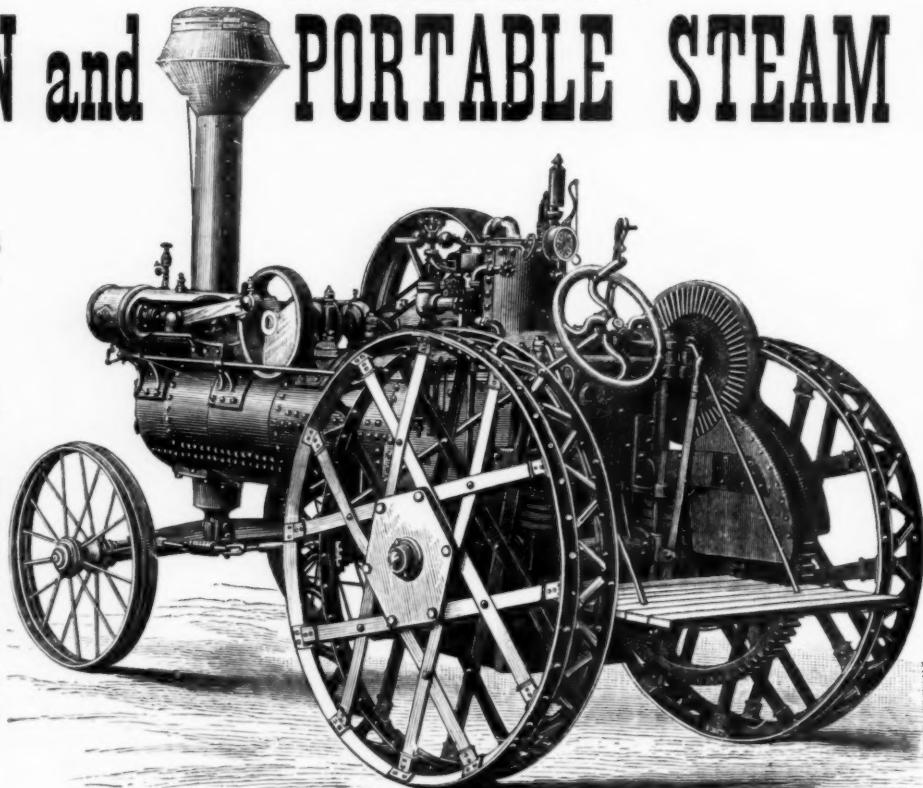
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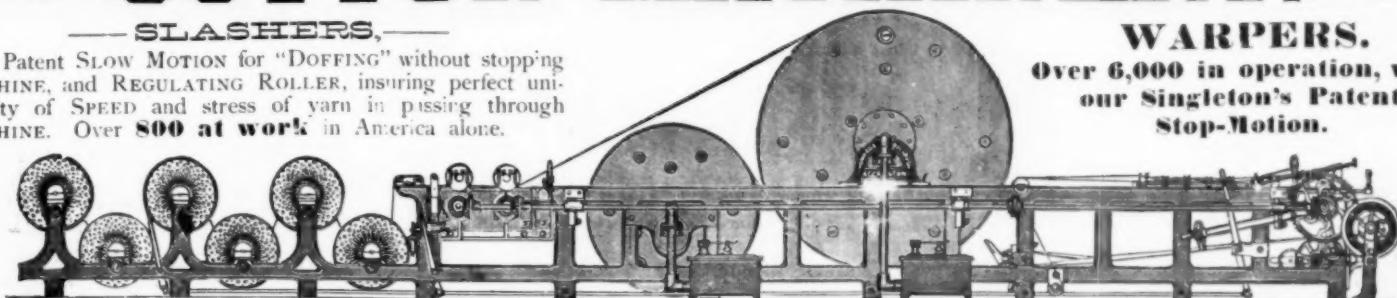
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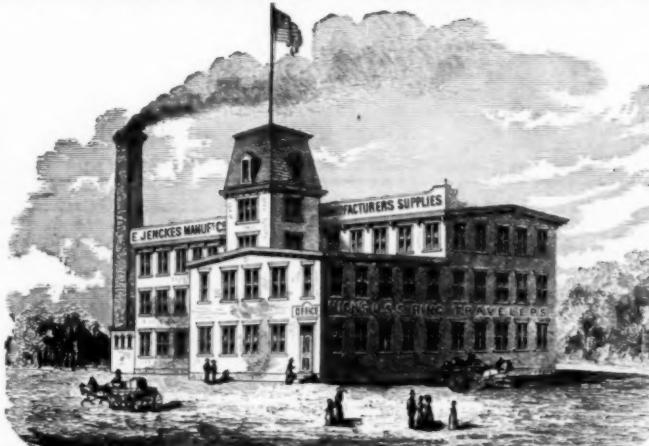
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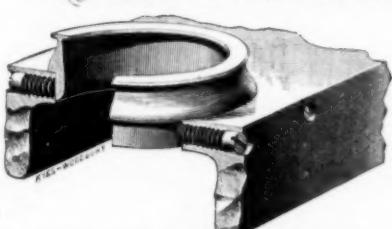
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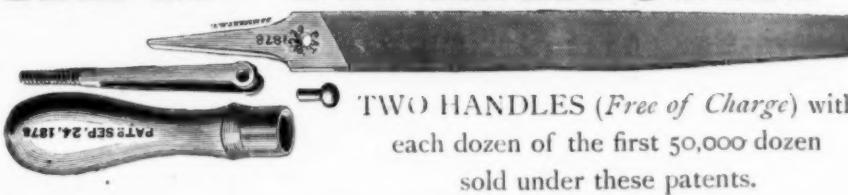
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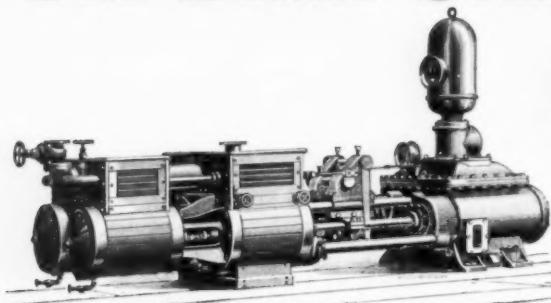
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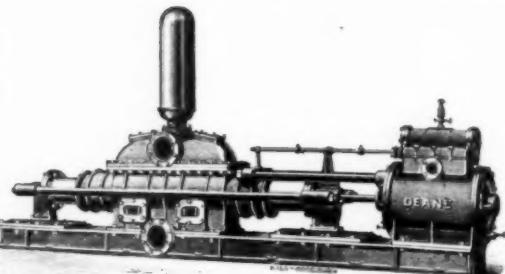
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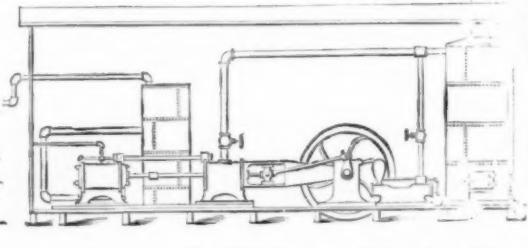
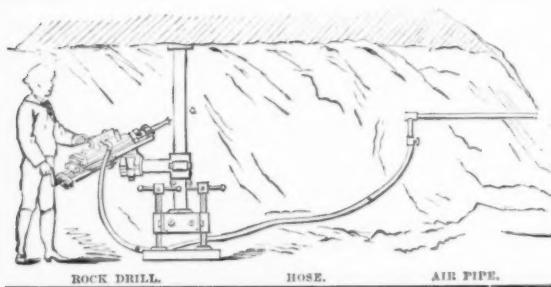
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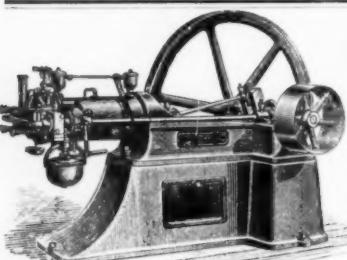
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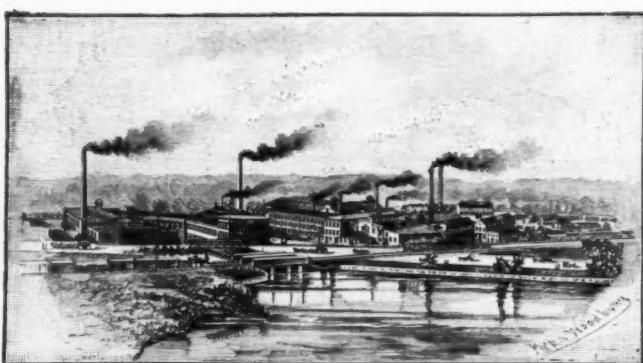
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BALTIMORE, FEBRUARY 23, 1884.

Our readers will confer a favor upon our advertisers and upon us, as well as benefit themselves, if, whenever they write to anyone advertising in this paper, if it is only for a catalogue, they mention that "your advertisement was seen in the BALTIMORE MANUFACTURERS' RECORD." A careful compliance with this request will be much appreciated.

NO MORE welcome journal, or one whose columns we take more pleasure in scanning, find its way to our office than the MANUFACTURERS' RECORD, of Baltimore. It is devoted exclusively to Southern material advancement, and each week contains a list of all new Southern industries. Its editorials are sound and readable, and the entire paper is handsomely gotten up. We would be gratified if some of our residents would read it long enough to become imbued with the spirit of progress its columns unfold, and then put the lessons they learn to practical use in our midst.—*New Era*, Amherst, Va.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. We invite those interested in the development of the South to make free use of our columns. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more,—so if you desire to attract immigration or capital, or if you know of an opening for profitable investment in manufacturing, mining or kindred pursuits, write us an account of it. It will be published free of cost.

Free Raw Material.

The leading papers of the South are beginning to appreciate the fact that free raw materials, as proposed by Mr. Hewitt and others whose individual interests would be benefitted in this way, would be a most serious blow to the South. A correspondent of the Lynchburg News, writing from Roanoke, shows that immense injury would be done to the iron ore-producing sections of the South by the admission of foreign ore free of duty, and predicts what we from personal knowledge of Southwest Virginia believe to be true, that "a platform with a 'free ore' plank in it would be utterly and irretrievably ruinous to the aspirations of any party in this portion of our goodly commonwealth."

In discussing the same subject the Mobile Register says: "If protection is needed it should begin with the producer of the raw material. If the log-cutter, the Southern saw mill, the rice and sugar planter, the wood grower, the coal and iron miner, cannot have protection we are ready to abandon it for any other purpose. When our Southern representatives place raw materials on the 'free list' and thus cut off all trade and all hope of trade, outside of cotton exports, between the coast cities and the interior country, which should make the coast cities great manufacturing depots, we feel no further interest in the question. We of the gulf coast in that event are doomed to a century of idleness." And after pointing out the value of protection by increasing home trade, it says: "The money goes from Mobile, New Orleans, Galveston, Key West and Pensacola back into the interior and supplies the wants of hundreds of thousands of home operatives. Then, again, the money flows once more to the coast cities for supplies for the miners, and so there are reciprocal interchanges of supplies and moneys—all enuring entirely to the benefit of people who are our neighbors, who help us to pay our State taxes, and among whom we move and have our being and our children will cast their future. The man who votes to place coal, iron ore or lumber on the free list is no friend of Mobile or of Alabama."

In Birmingham an organization has been formed to be known as the Alabama Industrial League, the object of which will be to unite the people of that State in favor of protection. The organization is, we understand, backed by leading men, and has every prospect of exerting great influence upon the affairs of that State. The Industrial League will teach what the MANUFACTURERS' RECORD has advocated, that the *first* duty of the people of the South will be to favor a protective policy if they desire their country to continue its present rapid development.

Politicians who are counting upon the South to support their free-

trade vagaries will find that the people of that section are more deeply interested in the development of their boundless resources of raw materials than in worshipping their former idols. The South is to-day a live country, and its people see and understand that there is only one way, and that by a protective tariff, by which the rapid progress of the last few years can be continued, and they propose to have that tariff. They wisely think that if that tariff could develop the manufacturing and mining interests of the North and West to their present enormous proportions it must be good enough to try for a while longer to see how it works with their section, and in this they show their wisdom.

Railroad Building in the South.

Notwithstanding the unwise and unjust railroad legislation in many of the Southern States during the last few years, and the consequent fear that other States might enact similar arbitrary laws, the outlook for railroad building in the South is on the whole very good. In some of the States railroad building will remain almost stationary until capitalists who invest in such enterprises are permitted to manage their own property; but in others, where railroads are more highly appreciated, there will be a large amount of building done during the present year. Already work has been commenced on a number of important lines, as well as on many short branch roads, the completion of which will require the expenditure of many millions of dollars; while many others have been incorporated, some of which, of course, will probably never be built, but a large majority will doubtless be pushed along as the advance of the South demands enlarged transportation facilities. Whether railroad building has been overdone in other parts of the country or not, it certainly has not in the South, and there is still room in that section for a great increase in railroads. Many parts of the South, enormously rich in mineral and timber wealth, are now so devoid of transportation facilities as to make it impossible for them to be developed, but with the present rush of capital to the Southern States there will soon come greater activity in railroad building, and new life will be infused into regions that are now practically cut off from sharing in the general advance of the material interests of the South. The growth of population, of manufactures and of agriculture will soon demand largely increased railroad building at the South.

THE Memphis Avalanche strikes the nail in the proper place when it says: "The Morrison bill should be entitled 'A bill to prevent Tennessee, Virginia and Alabama from taking iron ore out of the ground, and to discourage the employment of labor and the investment of capital in Southern manufactures.'"

Wisely Said.

The Boston Manufacturers' Gazette, which was formerly a free-trade paper, is strongly in favor of protection since its change of ownership and management. In a late issue it wisely says that "to attempt to enforce free trade to-day means that millions of spindles in this country are to be silent and rusting; that the looms shall stand still; that the boilers and engines are to be cold, and may properly condense the little moisture and rust out. It means that Pennsylvania, Michigan and Alabama shall no more have a cloud of smoke from their furnaces, their foundries, and that men shall no longer work at the smelting furnace, the melting furnace, the puddling furnace, the steam hammer or the rolls; that the cinders which fly off shall remain as they are, and that immense establishments and millions of dollars of capital shall lie idle, in this way reducing the traffic of our railroads and steamboats, putting two and three-quarters of a million people, who are to-day earning their living in the mechanical and other establishments connected with the main interests of the country, into the street. It means buying what we are now producing; and pray tell us where does the income come from?"

A Remarkable Showing.

The letter of Col. I. W. Avery, our regular Atlanta correspondent and the manager of our Atlanta office, published in this issue of the MANUFACTURERS' RECORD, presents a phase of Southern progress of remarkable interest. Col. Avery takes the statistics of the number of traders in the different sections of the country in 1880 and 1883, and shows that while the New England, the Middle, and even the Western States, exhibit a decrease in their percentage of the total number, the Southern States made a very decided increase.—And then, what is of still more importance, he shows that the percentage of failures in the South was less in 1883 than in 1880, while in the Middle and Western States there was an increase. By absolutely indisputable figures it is thus clearly demonstrated that the chances of success in merchandising and manufacturing are far greater in the South than in any other portion of the country.

ONE OF the surest indications of the improved condition and growing prosperity of the farmers of the South is the increase in the use of improved agricultural machinery. In the growth of this business the Champion mowers and reapers and twine binders manufactured in Springfield, Ohio, have taken the lead, and are becoming the standard in the South, as they have long been elsewhere. In sections where they have been known longest they are used almost to the exclusion of other machines.

Messrs. L. H. Lee & Bro., Baltimore, (one of the "liveliest" firms in the country,) are the Eastern agents, and under their energetic management the sales have increased largely every year. They will send catalogue, descriptions, &c., on application. In another column will be found a few notes from exchanges, showing the popularity of the Champion machines where they are known.

CONSTRUCTION DEPARTMENT.

We publish, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

AN extensive brick yard will be started at Claremont, Va.

O. A. COWLES, Claremont, Va., is improving his grist mill.

G. B. HAWS, of Westminster, Md., expects to start a furniture factory in Newberne, N. C.

EDISON Electric Light Co. probably be established in Asheville, N. C. N. W. Girdwood, of that city, interested.

INCORPORATED—Lynchburg, Va., Street Railway Co.

FREDERICKSBURG, Va., will build water-works at a cost of \$60,000.

MR. E. W. LYON, of Thomasville, N. C., has sold the Arrington gold mine, in Nash county, N. C., to Pittsburg capitalists, who will work it. Mr. Lyon still holds part interest.

THE Watts Coal, Coke and Iron Co. previously mentioned, will commence work within sixty days. President, Eugene Moorehead, Durham, N. C.; secretary and treasurer, John N. Webb, Hillsboro, N. C.

J. C. McCASKILL, of Shoe Heel, S. C., will establish a cotton factory at Fayetteville, N. C.

THE Lexington Manufacturing Co., Lexington, Va., will complete foundry in spring; also talking of starting woolen factory.

THE Washington, Ohio & Western Railroad of Virginia is preparing to relay with steel rails and extend line.

EUGENE ELLIS will erect a tobacco factory at Winston, N. C.

M. A. PINNIX, of Lexington, N. C., is largely interested in the Original Conrad Hill Gold and Copper Mining Co., previously noted. Full supply of machinery to be put in.

RISTINE & MAY will erect very large furniture factory at Chattanooga.

WORK on the Athens & Western Railroad, to run from Athens, Ga., to Jug Tavern, 19 miles, will be commenced very soon.

MR. CLAY PARROTT, of White Oak, N. C., will probably put up saw-mill.

MORRISON & WOODWARD are erecting a new sash and door factory in Chattanooga.

AN electric light company will probably be established in Lynchburg, Va.

A NEW iron mine is being opened adjoining mine of Rorer Iron Co., Roanoke, Va. J. B. Austin, of Roanoke, manager.

THE A. G. S. Railroad will build a large freight depot in Birmingham, Ala.

THE building of the Wilder Foundry and Machine Works, of Chattanooga, will be completed about April 1.

THE Winchester saw-mills, at Chattanooga, are being repaired.

RORER & CHAPMAN, Roanoke, Va., opening a new iron mine, and rumored that they will erect a furnace.

C. DODD & Co. have put up a furniture factory in Dalton, Ga.

THE State Capitol Commission having in charge the building at Atlanta of the \$1,000,000 capitol for Georgia, have accepted the plan of Edbrook & Burnham, of Chicago. Mr. Edbrook will probably superintend construction.

THE Rome (Ga.) Cotton Mills will probably increase capital to \$175,000, add a new building and put in new spindles and looms. The Whitehead & Atherton Manf. Co., of Lowell, Mass., are offering to purchase an interest in the mill.

IT is reported that the new cotton mill of the Eagle and Phoenix Manf. Co., previously mentioned, will cost \$1,000,000.

W. DUKE, Sons & Co., of Durham, N. C., have ordered 3,000,000 bricks for their new tobacco factory, previously reported.

WHARTON, Tex., will build a new jail.

AN ice factory is to be started at Richland, Tex.

THE Iron Belt Land, Mining and Development Company will engage largely in mining at Martins, Va., the name of which is to be changed to Pulaski, as stated last week.

DAVIS & SON, at Fork Church, Davie county, N. C., are erecting flour mill, gin and spoke and handle factory.

THE Coosa Furnace, Gadsden, Ala., is being rebuilt.

MACY & Co. are to erect gas works in Palatka, Fla., at a cost of \$15,000.

W. J. POLLARD will start cotton gin factory at Kosciusko, Miss.

MR. E. R. JONES, of Brierfield, Ala., will soon leave to establish an extensive machine shop at Calera, Ala.

A LARGE brick hotel is to be erected at Waycross, Ga.

W. H. BROOKS and others, of Alexandria, Va., will start a chain and bolt factory.

THE Richmond & Alleghany Railroad will build car shed, turn table, &c., at Lynchburg, Va.

PATRICK McCROSSIN, of Lynchburg, Va., will soon buy machinery to develop a gold mine.

MR. JOHN KELLY, of Lynchburg, will build a new reservoir for water works of that city to cost \$47,735.

ADDRESS of C. M. Jones, president of the newly organized Empire Woolen and Flouring Mills, capital stock \$50,000, is Stegall Post Office, Ga., previously mentioned.

MESSRS. Odell & Co., of Greensboro, N. C., and Mr. J. S. Carr, of Durham, are the stockholders in the \$150,000 cotton factory to be erected at Durham, N. C. Will erect building and put in 200 looms and 7,000 spindles.

JOHN C. ALLEN, of Cedartown, Ga., will go to Anniston, Ala., to build a large hotel.

A 75-mile RAILROAD from Colorado, Texas, to San Angela is to be built.

\$15,000 has been subscribed for an Electric Light Company in Fort Worth, Texas.

P. J. PAULY & BRO., of St. Louis, will build the new \$31,000 jail at Nashville, Tenn.

W. W. JONES & Co. are at work on their buildings for wooden bowl factory at Dyersburg, Tenn.

CHARTERED—Columbia (Tenn.) Cotton Mill Co., previously reported organizing.

W. K. BURTON, of Elyria, Ohio, will probably start a factory for ornamental wrought iron work in Chattanooga, Tenn.

H. H. YOURE, of Marshall, Texas, will build a street railroad in Gainesville, Tex.; stock \$20,000.

W. C. WELLS will build a new court-house at Livingston, Texas.

E. W. THOMPSON, C. W. Vinson and others, have organized the Union Wood Dish Co., in Chattanooga, Tenn.; capital stock \$30,000.

CHARTERED—Colorado Oil Co., of Colorado, Texas; capital stock \$50,000.

F. M. LOWEREE and others, of New York, have contracted to build extensive water-works in Hopkinsville, Ky.

MESSRS. DUBOIS will erect lime works at Blountsville, Ala.

THE Crozier Steel and Iron Works, of Roanoke, Va., will blow out to repair.

J. B. AUSTIN, of Roanoke, Va., is agent for the Dunbar iron mines, just being opened.

ROME, Ga., is to have a \$16,000 Methodist church.

THE Matthews Cotton Mill, No. 2, at Selma, Ala., is receiving its machinery. The capital stock is \$200,000.

MESSRS. MAYBURY & FOSTER, Pascagoula, Miss., will put up steam oyster-canning house.

To be incorporated in Mississippi—The Moss Point, Scranton & East Pascagoula Railroad.

MESSRS. LIDDELL & Co., Charlotte, N. C., have commenced building foundry and machine shops.

INCORPORATED—Birmingham & Tennessee River Railroad, by Samuel Thomas, Calvin S. Brice and others; capital, \$2,000,000.

A new jail is to be built in San Saba, Texas.

RUMORED—A big ice factory at Corsicana, Tex.

THE Knoxville City Mills Co., Knoxville, Tenn., have increased capital \$30,000, and will build a fine flour mill.

DR. J. C. CAWOOD and others, of Danbridge, Tenn., expect to build the Danbridge & Mossey Creek Railroad.

INCORPORATED—Illinois Southern & Paducah Railway Co., to build a road from Carbondale, Ill., to Paducah, Ky.

BRISTOL & CLARK, San Saba, Tex., have received the contract for the new jail at that place.

INCORPORATED in Virginia, the Salem & Southwestern Railroad Co.

T. F. RILEY is trying to build a \$10,000 hotel in Greenwood, S. C.

THE Walker County (Ala.) Coal Land Syndicate have united with the Sheffield-Seney Syndicate, which has been incorporated at Montgomery, Ala., with \$2,000,000 capital stock. Jere Baxter, Brice Terrell and others, incorporators.

INCORPORATED—The Calcasieu Lumber Company, to operate at Calcasieu, La., with head office at Austin, Tex.; capital stock \$200,000.

E. A. BURKE, director-general of the New Orleans Exhibition, is receiving bids for lumber, sashes, doors, &c., for the exhibition building.

A. G. AKIN & Sons, of Hagerstown, Md., will probably build a flour mill at Easton, Md.

J. M. PIPER, of Edna, Texas, will build a \$10,000 court-house for that town.

CHARTERED—Co-operative Cigar Factory of Sherman, Texas; capital, \$4,000.

ORGANIZED in Colorado, Texas, by A. W. Dunn and others—The Colorado, San Angelo & Southern Railway Co.

CAPT. Alden Howell will build tobacco warehouse at Waynesville, N. C.

DURHAM Tobacco Co., Durham, N. C., will build additional brick warehouse 120 feet long.

A STREET railroad to be built in Uvalde, Texas.

Mr. Sam Read, of Chattanooga, will erect a \$50,000 opera house.

KYLE, TEXAS, will build a \$1,500 court house.

CHARTERED—Waco Cotton Compress Co., Waco, Texas, capital stock \$50,000.

CHARTERED—Ennis Cotton Compress Co., Ennis, Texas, capital stock \$50,000.

A \$60,000 building for the German Home of the Aged will be built in Baltimore.

GEN. J. L. WALKER is superintending the building of the new State-house at Austin, Texas.

A COTTON gin and mill will be started at Pearsall, Trio county, Texas.

MR. JOHN H. WALKER, of Colorado city, Texas, will build a \$67,500 court-house in Fort Concho, Texas.

THE Waco (Texas) Water Company will increase machinery, &c.

A REFRIGERATOR company is being organized in San Antonio, Texas.

THE Williams saw and grist mill at Winona, Ark.

MILL and gin of W. H. Tucker, at Echo, Dale county, Ala.

THE new round-house at Mt. Clare, Baltimore, of the Baltimore & Ohio Railroad, mentioned by us some time ago, has been completed. It measures 770 feet in circumference, and is said to be the large round-house ever built.

THE MANUFACTURERS' RECORD, of Baltimore, with its beautiful and attractive heading, is upon our table. The design is well conceived and handsomely executed. The RECORD is one among the leading publications of the kind in the United States. The editorials are particularly interesting and instructive to the Southern people, and the RECORD should have a large circulation among them. We are indeed pleased to chronicle this as an evidence of the increased prosperity of this excellent journal.—*Virginian*, Lynchburg, Va.

THE MANUFACTURERS' RECORD, the greatest Southern trade journal, published weekly at Baltimore, Md., celebrated the advent of the New Year by substituting an elegant heading symbolical of the various trades which it so ably represents.—*North and South*.

THE Baltimore MANUFACTURERS' RECORD has put on a new and stylish head.—This publication ranks high among the industrial papers of the country. Its weekly articles on Southern industrial progress are able, interesting and reliable. It has a branch office at Atlanta, Ga., under the management of the well-known journalist, Col. I. W. Avery.—*American Lumberman*, New Orleans.

THE BALTIMORE MANUFACTURERS' RECORD is one of the most enterprising newspapers devoted to Southern industrial interests. It gives every week a large amount of information about Southern railroad, mining, manufacturing and building operations; also market reports and intelligent discussion of commercial matters.—*American Machinist*.

THE CURRENT of February 23d will contain a paper of very great interest from the pen of General James S. Brisbin, entitled "Garfield at Home," in which many heretofore unpublished facts regarding the dead president's home life, methods of work and public career are given.

An Interesting Feature of Southern Trade.

A Smaller Percentage of Failures at the South than in Other Sections.

SOUTHERN OFFICE
BALTIMORE MANUFACTURERS' RECORD,
ATLANTA, GA., February 16, 1884.

I desire to put two important points in this letter:

1st. I wish to give the extraordinary figures of our trade progress in the South.

2. I want to show that there have been substantially no business failures in Southern manufacturing, and as a legitimate deduction that, according to the practical test, investments in manufactures in the South are a safe and profitable matter.

1st. As to Southern trade progress, I give the table of the percentage of total number of traders in 1880 and 1883 in the different groups of States and the per cent. of total number of failures in the same years:

Per cent. of total number of traders.	Per cent. of total number of failures.
States, 1880.	1883.
Eastern.....	11
Middle.....	29.7
Southern.....	13.7
Western.....	40.1
Pacific.....	3.1

Now let us see the striking significance of these figures.

The Eastern States fell off one per cent. in their number of traders in the three years from 1880 to 1883; the Middle States fell off 8-10 per cent.; the Western States fell off 16-18 per cent.; the Pacific States, only three in number, increased 1-10 of one per cent.

But the South increased 2-2-10 per cent. in her number of traders, while the rest of the country decreased 3-3-10 per cent. The fact is simply wonderful.

But this is not all. The South demonstrated her superiority in another striking particular. She not only had an increase of traders when the others, with the exception of the three Pacific States, fell off, but her percentage of failures fell off to a larger degree.

The Eastern States had the same percentage of failures in 1883 as 1880, showing no improvement. The Middle States increased their failures 1-1 per cent. The Western States increased their failures 4-9-10 per cent. The three Pacific States diminished their failures three per cent., while these under-estimated Southern commonwealths showed in the three years a falling off of 4-9-10 per cent. in their business failures. The fact is marvellous, and demonstrates how solid has been Southern trade.

These figures well support the individual case of the Lawson Brothers that I gave in my last letter, which show how much better in a run of fifty years the same kind of men with the same advantages of personal qualities and means had fared in the South than in the West and North. These statistics seem to establish that the South is a better field for successful trade than either the North or West.

2d. As to the certain profitableness of manufacturing in the South:

I give a table presenting whole number of failures with the proportion of failures of manufacturing establishments. The table makes an instructive exhibit. These figures are for 1883:

Whole number of failures in 1883.	Number of failures of manufacturers.	Per cent.
Eastern.....	1,507	164
Middle.....	2,328	322
Southern.....	1,982	47
Western.....	3,282	152
Pacific.....	901	32

We see from this important table that the South has had a smaller per cent. of its failures in manufacturing industries and investments than any of the sectional groups of our great Union. The Eastern States, of their failures in 1883, had 11 per cent. manufactures; the Middle States, 10 per cent.; the Western, 4-1/2; even the Pacific States 3-1/2; while the South had but 2-1/2 per cent.

There is a class of miscellaneous failures not classified, said to include makers of

patented articles, novelties and specialties. It would be, perhaps, just to allow the same proportion of failures here; though as the North makes more of these patents and novelties, the actual figures would bear still harder there. But adding all these miscellaneous to the manufacturers' list of failures, we have this table, which leaves the South still the least per centage of industrial failures.

Whole number of failures in 1883.	Number of failures of manufacturers including miscellaneous.	Per cent.
Eastern.....	1,507	295
Middle.....	2,328	590
Southern.....	1,982	157
Western.....	3,282	334
Pacific.....	901	99

These vital figures are well worthy of the consideration of capitalists and investors, who can see in the South, according to the logic of experience, the safest and most profitable field for the investment in manufactures.

Let me now close this article with a table of the details of manufacturing failures:

MANUFACTURES.	Eastern States.	Middle States.	Southern States.	Western States.	Pacific States.
Boots and shoes.....	47	26	11	32	1
Brick.....	2	1	1	4	1
Carpets.....	10	36	11	32	6
Carriages and wagons.....	1	1	1	1	1
Clotting.....	2	12	46	3	1
Coffectionery.....	9	12	3	3	1
Cotton goods.....	2	12	46	3	1
Crockery.....	2	6	2	3	1
Fire-arms.....	2	6	2	3	1
Frames.....	9	8	2	3	1
Furniture.....	10	1	1	1	1
Furs.....	1	1	1	1	1
Glass.....	1	1	1	1	1
Hats and caps.....	3	18	46	1	1
Hardware.....	1	1	1	1	1
Harness and saddlery.....	2	3	1	1	1
Hosiery.....	1	14	1	1	1
Iron and steel.....	6	16	4	10	1
Jewelry and watches.....	18	4	2	2	1
Leather.....	1	13	4	4	2
Leather goods.....	14	27	15	19	5
Lumber.....	11	9	5	9	3
Machinery.....	1	3	1	1	1
Millinery and straw goods.....	1	1	1	1	1
Miscellaneous.....	132	294	104	182	61
Oils.....	1	1	1	1	1
Paper.....	4	8	5	5	1
Stoves.....	1	1	1	1	1
Silks.....	1	5	1	1	1
Tobacco and cigars.....	5	23	7	16	8
Willow-ware.....	1	2	1	1	1
Woolen goods.....	14	10	3	1	1

I shall, in some future letter, give an analysis of this last table, and the lessons conveyed in the figures. I. W. AVERY.

Baltimore's Southern Transportation Facilities.

We have been informed that in our last issue an injustice was done to the Norfolk & Western and the Shenandoah Valley Railroads, and also to the Western Maryland Railroad of this city, in our article pointing out the need of increased Southern transportation facilities for Baltimore.—Such was not our intention. There is almost a universal complaint among the business men of this city that Baltimore is losing her Southern trade because she lacks adequate transportation facilities; and if the fault is with our merchants and not with our railroads, we would be very glad to know it.

The strictures in our last issue upon the Norfolk & Western and the Shenandoah Valley Railroads came from one of the leading business men of Southwest Virginia, and as an independent journal such communications from responsible sources are always welcomed to our columns. We always like, however, to hear both sides of every question, and we would be glad if Mr. Griswold, of the Western Maryland, or Mr. Pope, of the Norfolk & Western, or some one else as competent as these gentlemen, would give us his views upon this subject.

We confess that we have greatly admired the energy and enterprise with which these railroads have been pushed, and the marvelous development that they have wrought in Virginia. The amount of good that they have accomplished for that State is simply wonderful.

MANUFACTURING.

Subscribe to the Baltimore Manufacturers' Record. Price \$3 per year.

BALTIMORE.

MESSRS. E. J. CODD & CO., 255 to 261 South Caroline street, are about completing a Scotch boiler, made of steel, a condenser and a pump to go to Texas. They also have orders for a number of oil tanks, and are building a fish tank, 5x10 and 36 inches deep, besides overhauling old boilers and building new stacks for parties in the city.

MR. F. H. FOLSON, millwright and mechanical engineer, reports business as taking a turn for the better, orders coming in and estimates being asked for. He is doing millwright work for a firm in the city, and has completed work of a similar character for a party outside.

We would invite special attention to the advertisement in this issue of the MANUFACTURERS' RECORD, of Messrs. Hirshberg, Hollander & Co., wholesale dealers in paints, oils, window glass, &c., No. 240 W. Pratt street. This house was established in 1845, and now controls a trade extending all over the country. They are manufacturers' agents and wholesale dealers in French and American window glass, cut, ground, enameled, &c.; paints, oils, varnishes, glues, painters' and artists' supplies, etc., etc. They are also agents of Mosher's oil, which is just the thing needed in mills and factories; and are also manufacturers of neats-foot harness oils, which cannot be excelled. This firm occupy four warehouses: No. 240 West Pratt street, which is the wholesale house, being 30 feet front with a depth of 100 feet, four stories high, while the retail house is corner of Pratt and Hanover streets, about 25x60 feet, three stories high. Information regarding prices, &c., will be cheerfully furnished.

MR. JAS. BATES, manufacturer of Bates hand elevators, Nos. 1, 3, 5 President street, has lately made and shipped his well-known elevators, one to Jacksonville, one to Lynchburg, one to Waynesboro and one to Washington. Elevators are one of the most essential things in warehouses and mills, in fact in every place where merchandise is transferred from one story to another. This make of elevator is so well and favorably known that it is needless to say more than that they give the satisfaction and meet all the requirements.

MR. WM. C. CODD, dealer in machinists' supplies, Nos. 306 and 308 Aliceanna street, offers for sale second-hand machinery cheap, viz: a 30-horse power engine, 40-horse power boiler, and one 20-horse power engine and a 30-horse power boiler, all being in first-class order. Mr. Codd is also agent for Naylor's patent cylinder oil cup, which is becoming widely and favorably known, and has received numerous orders for them. The Lawson Gas Engine, which he represents, is manufactured from 1 to 2-horse power. It is durable and economical, and is just the thing desired for small power.

MESSRS. H. C. LARRABEE & CO., South Caroline street, have no new work to report, but have sufficient on hand to keep their accustomed force busy. They are doing work mostly for firms in the city.

MR. WM. L. PETTIT, proprietor of Novelty Boiler Works, 40 York street, has done extensive repairs on the boilers of steamer Jane Moseley, of the Inland and Seaboard Co., of Washington, D. C., and is repairing the boiler of the steamer Gibson, of the same line. He has closed a contract to furnish two locomotive boilers for the wharf of the Baltimore Steam Packet Co., for use in lighting the wharves by electricity and furnishing the steam for a laundry to be erected on the wharf to do the laundry work of the Norfolk steamers.

IN GENERAL.

THE Westinghouse Machine Co., of Pittsburgh, report trade for the new year as being very brisk. Among recent orders they mention three engines for Australia, one for Japan, one for France, and one for Holland.

THE Lechner Manufacturing Co., Columbus, Ohio, manufacturers of roller chain belting, elevating and conveying machinery, have received orders from the Quaker City Dye Works, Philadelphia, Pa., for chain elevator; Card Fabrique Co., Middletown, Ohio, chain conveyers; Jas. Reid, Oil City, Pa., driving chain; Theo. Fluehart & Co., Wellston, Ohio, chain elevators for elevating coal; Star Rubber Co., Trenton, N. J., driving chains; J. A. DuBois Manufacturing Co., Northville, Mich., with saw-dust conveyers, and many others. See advertisement.

THE large and magnificent boiler which attracted so much attention at the South Carolina Railway depot, and mentioned in Friday's paper, was ordered from the well-known firm of Talbott & Sons, of Richmond, Va., through their Charleston agents, Messrs. F. Brotherhood & Co., of this city. It is a return tubular boiler of about 100-horse power, 63 inches in diameter, and weighing about 25,000 pounds, and pronounced by experts for workmanship and finish, one of the best pieces of work ever seen in this city. The boiler was constructed especially for Julian Fishburne's phosphate works on Ashley River, where it will be placed in position by Messrs. Brotherhood & Co., and set with the Jarvis patented furnace.—*Charleston (S. C.) News.*

MESSRS. KING & HOFF, Cave Spring, Ga., offer for sale a half interest in their reducing works for manufacturing Georgia metallic paint and ground lime-stone for fertilizers. These works are well supplied with new machinery, and, it is claimed, are paying 30 per cent. profit. A half interest is offered for \$1,750.

SIMMONS & WILDER have erected a large saw-mill at Lincoln, Ala.

THE Empire Woolen & Flour Mill Co., just incorporated with \$50,000 capital stock, write us that they want a good woolen man for general manager. This company has a large amount of fine water power to lease about 1,000 yards from railroad. C. M. Jones, president, Stegall's Post Office, Ga., will give any particulars desired.

THE New York Times is fitting another of its heavy presses with an Independent Westinghouse Engine coupled direct to it, and controlled by the pressman. A similar one in operation for a year has given great satisfaction.

Not the least important of the objects of interest in Cincinnati is the Palace Hotel, which is an imposing structure eight stories high, fronting on three streets. All the floors are reached by elevators; the office and dining-room are lighted by electricity, and it is provided with all the modern aids to comfort and convenience. The rooms are newly papered and it is elegantly furnished throughout.

THE St. Gotthard tunnel, under the Alps, is 9-1/2 miles in length. The same distance could be measured by 334,900 of Esterbrook's Commercial Pens extended lengthways.

Improved Carding Machinery.

The accompanying illustrations show two of the Garnett machines, made by the James Smith Machinery Co., of Philadelphia.

The Garnett is a machine for carding and reducing all descriptions of waste, cuttings, &c., to nearly as good staple as it had before it was used. It is of comparatively recent origin. It is only within the past few years that such a machine has been introduced to the notice of manufacturers, and yet so great is its merit that within a short space of time the "Garnett Machine" has become an indispensable adjunct to many mills. Wherever used it has given complete satisfaction. It enables manufacturers to comb out all their waste, whether from cards, mules, spinning frames, or from whatever source twisted or tangled fibres are produced in the various processes of manufacture, as well also of the pieces, clippings or remains of the manufactured product, and to restore it to the original fibre. This is a great saving, as otherwise

against the doffer. The three-cylinder machine, which has 23 carding contacts, is the most practical and will most perfectly reduce to its original fibre the finest double and twisted yarn waste, also cotton cop waste, and all kinds of clippings from goods, doing from 300 to 800 pounds per day; the two-cylinder machines will work all kinds of soft woolen, common worsted and other yarn wastes, in quantities about like the three-cylinder. The one-cylinder machine will thoroughly open soft waste in once passing through, and is especially adapted to small mills. All the machines have the same attachments and are alike except in length.

All machines are either breast or plain. In the plain machine the lickerin runs downward against the feed rolls and is stripped by main cylinder. In the breast machine the lickerin runs up against the feed rolls and is stripped by a tumbler, which transfers the stock to main cylinder. In this machine the lickerin is provided with five toothed rolls called breast workers. The stock being fed in by the feed rolls is

general mill use, where any and all kinds of waste is to be worked, a breast machine is to be recommended.

The low-down Garnett is a breast machine with a single 6-inch worker in the breast, which is set so low as to allow of 6 in place of 5 workers over the main cylinder of the machine. This machine is designed especially for low grades of cotton and other stock. It may be fed by laps as in Fig. 1, and may be placed in line with cotton cards and doff directly on to the railway band of a set of cotton bat cards. This is the best style of machine for low grades of stock that are so heavy as to be liable to fall in being transferred from the lickerin to the main cylinder.

The toothing is made of steel stock, prepared expressly for the purpose, which is rolled out into triangular or wedge-shaped wire. By reason of the toothing being in a tapering form, it is readily stripped or cleaned of fibrous materials, and, being the shape of a wedge in section, the metal of the tooth is so disposed as to secure the utmost possible strength. This toothing is

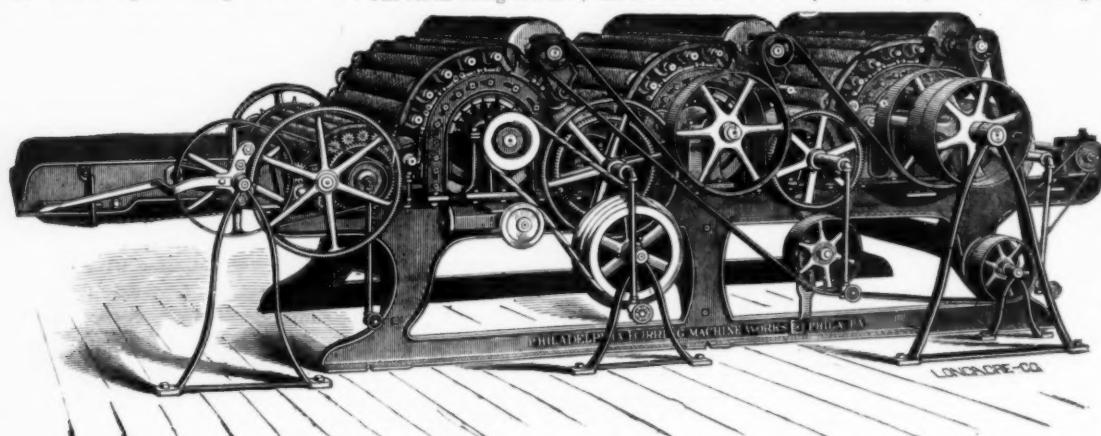


FIG. 1—RIGHT HAND SIDE VIEW OF THREE CYLINDER BREAST GARNETT MACHINE.

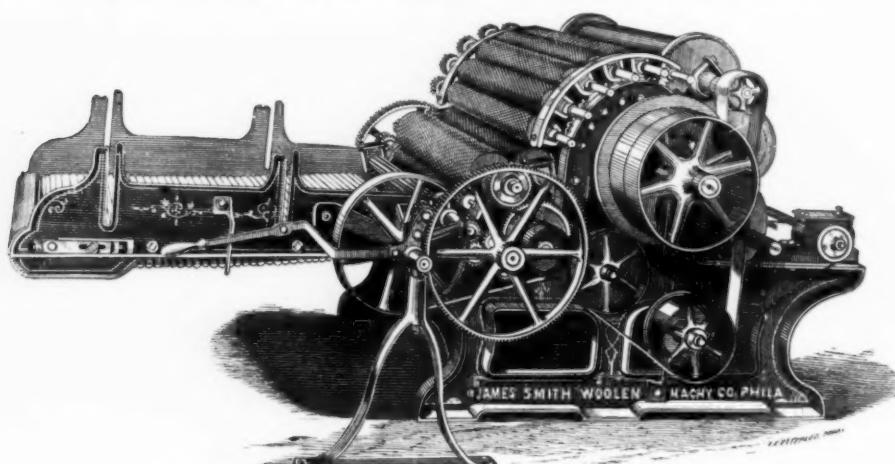


FIG. 2—RIGHT HAND SIDE VIEW OF LOW DOWN GARNETT MACHINE.

such waste would be disposed of at a nominal sum. There is no class of woolen or cotton manufacture where this machine would not be of great service. In many cases a special branch of industry has been originated by parties who make a business of buying wastes of various kinds, and, after reducing same in their "Garnetts," resell at great profit. It is also used in certain specialties, as for remains of felt goods, tailors' clippings, extract stock, &c.

Figs. 1 and 2 show side views of two different kinds of machines which are built of one, two or three main cylinders, and from 30 to 60 inches in width; over each main cylinder are placed five self-stripping workers, 4 inches in diameter, and a fancy with stripper 9 and 6 inches in diameter respectively. Unlike the fancy of the wool card, on this machine the fancy does as much carding as the workers; it combs the stock across the teeth of the stripper when it raises it from the main cylinder, the stripper revolving slowly lays the stock again on the main cylinder that it may be lashed

caught up by the lickerin and subject to seven carding points before reaching the main cylinder. The breast machine is best adapted to lumpy, hard twisted or tangled stock, as the stock being subject to carding against the workers is much more opened when it reaches the main cylinder than in the plain machine.

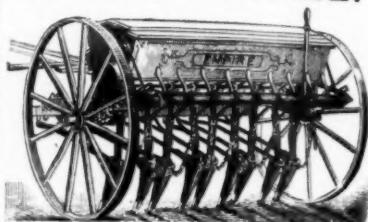
The plain machine is usually built with the 8-inch worker or lumper roll between lickerin and main cylinder. This worker is very useful on some kinds of lumpy stock in breaking up the lumps before they reach the main cylinder. The worker is geared to run very slowly, so as to hold the lumps as long as possible while being combed out by the lickerin. In comparing the breast with the plain machine, it should be said in general that the breast machine is best adapted to every condition where the stock contains firmly twisted thread, lumps or pieces that would injure the more delicate toothing of the main cylinder. But where soft yarn and waste only is to be carded, then the breast is not required. But for

guaranteed not to become loose or to pull out under the severest test, if it does the manufacturers will repair it in all cases without charge.

For further particulars address the James Smith Machinery Co., Philadelphia.

THE MANUFACTURERS' RECORD, published at Baltimore, pays more attention to Southern manufacturing enterprises and news than any other trade journal. It has organized a special construction department, by which it is enabled to keep its readers informed of every new enterprise in the Southern States. That this is possible and profitable, tells a sure indication of what we are doing.—*Chronicle*, Raleigh, N. C.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

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Any brand of commercial manure sown with accuracy. **NO GUESS WORK.** Over 8,000 in use, giving unbounded satisfaction.

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All three Implements first-class in every respect. Address inquiries to

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ENGINES, BOILERS, &c.

For Sale Low.

1	Porter Horizontal Engine, 50-H. P. New.	18-H. P. "
1	" Portable "	25-H. P. "
1	" "	4-H. P. "
1	Birrell Traction Engine, 10-H. P. "	
1	" Portable "	10-H. P. "
1	" "	8-H. P. "
1	Semi-Portable Engine, 8-H. P. New.	
1	Wood, Tabor & Morse, 8-H. P. Second hand.	
1	Curley Saw Mill, No. 2. New.	
1	Novelt Saw Mill. New.	

Also Engines, both Portable and Stationary, any size, or any size or description of Boilers, The Gardner 3-Cylinder Engines.

Snyder's Little Giant Engines and Boilers.

Low Prices guaranteed. Send for Estimates, stating size wanted and purpose to be used for, to

WM. R. EMERSON,

6 and 8 North Liberty St.,

BALTIMORE.



is selling very fast in the

East, and is meeting with well-merited success. This little article should be in every place where a towel is used, as it saves towels and at the same time saves trouble. We will send a sample with prices for 15 cts., or a sample dozen for \$1.00.

Haf & Co., Box 24,
HARTFORD, CONN.

GAS ENGINES.

Started Instantly. No Fire to Build. No Boiler to Watch. No Engineer Required. No Coal nor Ashes. No Water Needed.

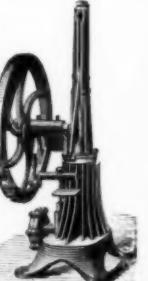
No Danger of Explosion!

Four Sizes, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ and 1-Horse-power, (Actual).

When stopped all expense ceases. The most convenient and cheapest Motor for small power ever made. Just the thing for Printing Offices, Laundrys, Jewevers, Saddlers, Coffee Mills, Small Shops, etc.

Sombart Gas Engine Co., HARTFORD, CONN.

For sale by **JACKSON & TYLER**, 16 S. Howard St., Baltimore.



If you are not already a subscriber to the Baltimore Manufacturers' Record, send us \$3 and you will receive it regularly for one year or six months for \$1.50.

Silver-Plated Ware.

A representative of the MANUFACTURERS' RECORD lately enjoyed the rare treat, while in Middletown, Conn., of being shown through the entire establishment of the Middleton Plate Co. by one of the officers. As an illustration of what can be accomplished by well-directed energy and enterprise, a brief notice of this company may be of interest. In 1864 Messrs. Edward Payne and Henry Bullard, both practical white-metal workers and platers of long experience, rented a small room and power in a factory in Middletown, and, with but four or five hands, laid the foundation of the present extensive industry. In 1866 the company was incorporated under the name of the Middleton Plate Co., with a capital of \$20,000.

The old factory having been vacated, it

superintendent. New York office, 13 John street; J. W. Johnson, agent.

B. F. Norris & Co., of Chicago, Ill., and Phelps & Miller, of San Francisco, Cal., are also agents. Catalogues, circulars and other information may be obtained at either of these offices.

List of Patents.

The following patents were granted to citizens of the Southern States, bearing date Feb. 12, 1884. Reported expressly for this paper by Louis Bagger & Co., mechanical experts and solicitors of patents. Washington, D. C.

293,360. Heinig and Stitzel, Louisville, Ky. Bottle.

293,393. Bahn, Gus. A., Austin, Tex. Napkin ring and holder.

293,399. Barmore, A. K., Benton, Tex. Adding machine.

293,405. Binford, B. W., Richmond, Va. Potato digger and riddler.

293,479. Long, Dennis M., and J. Killer, Louisville, Ky. Railway freight-car door.

293,484. Mason, C. T., Jr., Sumter, S. C. Cotton-picker stem.

293,485. Mason, C. T., Jr., Sumter, S. C. Cotton-picker stem.

293,500. Meikle, Thos., Louisville, Ky. Cultivator.

293,543. Meisenger, John W., Senterfitt, Texas. Fence.

293,590. Miles, John E., Marlin, Texas. Post-auger.

293,546. Monroe, D. M., Baltimore, Md. Can-soldering machine.

293,547. Moore, B. S., Austin, Texas. Propelling vehicles.

293,588. Moorehead, J. M., The Plains, Va. Saw-set.

293,589. Muller, Edward A., Louisville. Striking mechanism for eight-day clocks.

293,497. Nash, W. N., Starkville, Miss. Rule and try-square.

293,509. Norris, G. S., Baltimore, Md. Bottle-stopping device.

293,501. Norwood, J. W., Greenville, S. C. Dental plunger.

293,502. Norwood, J. W., Greenville, S. C. Dental engine.

293,503. Ogden, Floyd, Fisherville, Ky. Water-gate.

293,505. Pace, Jeff. D., Arcadia, La. Combination plow.

293,534. Squires, John O., and J. K. Shriner, Baltimore, Md. Guard for moulding machines.

293,535. Staples, John M., Rose Mills, Va. Velocipede.

293,603. Thompson, Melchesedeck Y., Arkadelphia, Ark. Press for wheat, bran, &c.

293,392. Woods, A. M., Shiloh, S. C. Machine for scraping and cleaning intestines.



SILVER-PLATED WARE—MIDDLETON PLATE CO.

was purchased by this company, and the number of hands was increased to twenty-five. We now find them employing several hundred skilled workmen, and turning out annually nearly half a million dollars worth of fine plated ware. To show the excellence of their goods, we present the accompanying illustration, which will give some idea of the elaborate skill displayed on their work, its character and great beauty. They are now very busy making preparations for the spring trade, when, in addition to their usual assortment of superior plated ware, they will present, as a specialty for this season, a large line of goods very elegant and popular, styled the "Fluted Pattern." All goods in the hollow-ware line are made in this most modern design.

The officers of the company are: G. H. Hulbert, president; Thomas H. B. Davis, vice-president; Edward Payne, treasurer; Jas. H. Kelsey, secretary; Henry Bullard,

293,219. Blaine, G. E., Ringgold, Ga. Vehicle spring.

293,555. Bowles, T. H., Atlanta, Ga. Traveling signs for cars.

293,231. Bringier, L. A., Donaldsonville, La. Cultivator.

293,312. Cottle and Ivie, St. Jo, Tex. Hopple for horses.

293,437. Ellis, Q. A., Gatesville, Tex. Shot case.

293,296. Faulkner, J. J. and E. T., McMinnville, Tenn. Machine for treating middlings.

293,444. Foster, J. H., Era, Tex. Steam boiler cleaner.

293,576. Haselton, D. B., Charleston, S. C. Saw for cotton gins, &c.

293,459. Hawn, Wm., Knoxville, Tenn. Mail bag.

293,248. Holland, A. D., Newport, Ark. Combined lock and latch.

293,251. Howell, G. W., Covington, Ky. Wheel.

293,469. Jauquith, Gilman, Maysville, Ky. Clothing for pulleys.

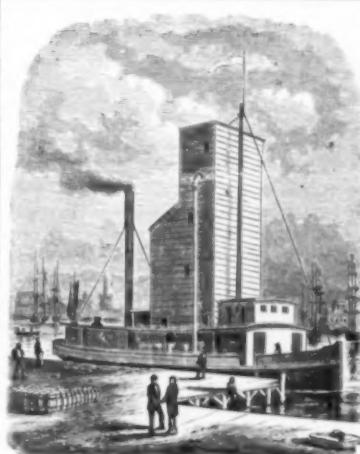
293,332. Johnson, Josee, Norfolk, Va. Device for cleaning and separating peanuts.

293,333. Johnson, Josee, Norfolk, Va. Table for assorting beans, nuts, fruits, &c.

293,582. Ladd and Whitaker, Baltimore, Md. Show case.

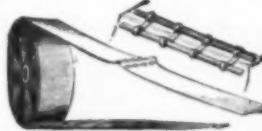
saves towels, but saves time and trouble. The price is so small that no one will be kept from buying one of these holders on account of the cost. A sample can be had from the manufacturers, Haff & Co., box 24, Hartford, Conn., for 15 cents.

The weekly articles on "Southern Industrial Progress" are a feature of the Baltimore MANUFACTURERS' RECORD, and are interesting, thorough and trustworthy. The RECORD publishes every week probably more information relative to Southern manufacturing, mining and railroad affairs than can be gathered from any other single source. It has in many ways contributed largely to the material development of the South and deserves a wide circulation throughout the Southern States. It has a branch office at Atlanta, Ga., under the management of Col. I. W. Avery.—Charleston, S. C., *News and Courier*.



F. H. FOLSOM,
Millwright and Mechanical Engineer,
18 East Falls Ave., BALTIMORE, MD.

All work executed and Drawings furnished at shortest notice for Floating and Stationary Elevators, Flour Mills, Malt Houses, Breweries, Saw Mills, Fertilizer Factories, Sulfur Mills, Paper Mills, and all other kinds of Machinery.—Orders by mail promptly attended to at lowest prices.



Agent for Seldner's Improved Belt Fastener.
—Send for Circular and Sample.—

E. J. CODD & CO.
Foundry, Machine and Boiler Works,
255 to 261 S. Caroline St., BALTIMORE.

—BUILDERS OF—

Stationary and Marine Boilers, Stills, Tanks, Agitators, Kettles, &c., Stationary and Marine Engines, Fertilizing Mills, Steam Dredges, &c. Prompt attention given to Steamship, Mill and other Repairs. Iron and Brass Castings made to order.

Derby Roll Top Desks.

—Best Office Desk in the World.—



Cherry, Walnut, Oak, Ash and Mahogany.

—Send for Illustrated Catalogue.

Geo. H. Derby & Co.
55 Charlestown St., Boston, Mass.

WIRE RAILING
and Ornamental Wire Works.
DUFUR & CO., 36 N. Howard St., Baltimore.
Wire Railing for Cemeteries, Lawns, Gardens, Offices and Balconies; Window Guards, Tree Guards, Wire Cloth, Sieves, Fenders, Cages, Sand and Coal Screens, Iron Bedsteads, Chairs, Settees, &c.

PRINTERS' ROLLERS.
Composition, 35 cts. per lb. No charge for casting.
Orders by mail given prompt attention.

B. DIETZ, Cor. Light and Mercer Sts., Baltimore.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year or six months for \$1.50.

HARDWARE.

But few changes have been made in the nominal quotations during the week, though it is claimed by some of our dealers that prices are being badly cut by salesmen on the road, while others maintain that prices are being pretty firmly held up. Hardware generally is very low, and manufacturers are scarcely making much money, but the present outlook does not seem to favor any material advance. The advantage at present is doubtless with the buyers, who are able to obtain very low figures.

At a meeting of the Western Nail Association, the card rate was fixed at \$2.60. The price in this market for large lots is \$2.50, with stock light and a firm tendency partly on account of strikes in the East and floods in the West.

In oils prices have tended up,—lard, fish and elephant oils showing an advance of several cents.

Cincinnati Iron Market Report.

Specially reported by ROGERS, BROWN & CO., Pig Iron Commission.

CINCINNATI, Feb. 18, 1884.

Business in pig iron continues at a standstill in the Ohio Valley, in consequence of the flood. Scores of foundries and mills are still under water, though the work of resumption will be rapid when once begun. Beyond the interruption of work, the losses in most cases will not be heavy. The enforced idleness of the rolling mills will have a beneficial secondary effect in restricting production and strengthening prices of finished iron. Prices of pig metal continue firm, and the demand from more Northern points is quite up to the average. Some sales have been closed within the week for delivery through the entire year at 75 cts. per ton above present prices. We quote for cash:

HOT-BLAST FOUNDRY.

Hanging Rock C. C., No. 1.		\$22.00@23.00
"	" 2.	20.00@22.00
Southern	" 2.	21.00@22.00
Strong Coke,	" 1.	19.00@19.50
"	" 2.	17.50@18.50
"	" 3.	17.00@18.00
Soft Stone Coal,	" 1.	19.00@20.00
"	" 2.	17.50@18.50

FORGE.

Strong Neutral, No. 1 Mill.		16.50@17.00
Cold Short.	" 1 "	15.50@16.00

CAR WHEEL AND MALLEABLE.

Hanging Rock C. B.		30.00@31.00
"	" W. B.	23.00@26.00
Southern Car-Wheel Iron.	"	23.50@26.50
Lake Superior	" Malleable.	24.50@25.50

Specially reported by E. L. HARPER & CO.

CINCINNATI, February 18, 1884.

The flood which culminated here on the 14th inst., at 71 feet 1 inch, has proven more disastrous to the great Ohio Valley than we predicted last week or could have anticipated. The waters have reached far into the interior, and nearly all the mills in the West, Pennsylvania, Pittsburgh, West Virginia, Mahoning Valley and Ohio river sections have been inundated. The presence of this deluge, unprecedented since Noah's record, has necessarily interrupted general business, and almost suspended traffic in iron in the large territory flooded. The consequent large curtailment in the production of manufactured iron will give an impetus to the trade when resumption becomes practicable. Many of the furnaces in the area of the flood, taken by surprise by the extraordinary rise of the waters, are afflicted with chilled stacks, so that not an inconsiderable measure production of pig iron has been abridged. It is but reasonable to suppose that materials and prices will appreciate in value. The general demand for pig iron in the East, North and West continues fairly active. Prices rule firm and we quote as market as follows:

FOUNDRY. Four Months.

Hanging Rock Charcoal, No. 1.		\$22.50@23.50
"	" 2.	21.25@22.50
Strong Neutral Coke,	" 1.	18.50@19.00
"	" 2.	17.50@18.00
American Scotch,	" 1.	19.00@19.50

GREY FORGE.

Neutral Coke.		16.7@17.25
Cold Short.	"	16.25@16.50

CAR WHEEL AND MALLEABLE.

Hanging Rock, strictly cold blast.		—@27.25
"	" warm "	24.00@24.50

Lake Superior Charcoal, all grades. 34.00@35.00

South. Car Wheel, strictly cold blast. 26.50@27.50

Louisville Iron Market.

Specially reported by GEO. H. HULL & CO., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, KY., February 18, 1884.

The market is quiet, and sales are nearly suspended here on account of the flood. The demand from other sections is good, and prices are very firm. Southern furnaces are generally well sold ahead, and some are asking 50 cts. and \$1 per ton more for delivery six or twelve months ahead. Car-wheel irons are still very low, with little demand. We quote:

FOUNDRY IRON.

No. 1 Hanging Rock Charcoal.		\$22.00@24.00
"	" Southern Charcoal.	21.00@22.00
"	" Hanging Rock Stone Coal and Coke.	30.00@21.00
"	" 1 Southern Stone Coal and Coke.	19.00@19.50
"	" 2 "	18.50@18.50
American Scotch.	"	17.50@18.00
Open Silver Gray	"	17.50@18.00
Close "	"	16.00@17.00

MILL IRONS.

No. 1 Charcoal.		19.00@20.00
"	" Stone Coal and Coke, Neutral.	17.00@17.25
"	" 2 "	16.25@16.50
"	" 1 Stone Coal and Coke, Cold Short.	16.50@16.75
"	" 2 Stone Coal and Coke, Cold Short.	15.75@16.25
White and Mottled, Cold Short and Neutral.	"	14.50@15.00

CAR-WHEEL IRONS.

Hanging Rock Cold Blast.		25.00@30.00
"	" Warm "	22.00@25.00
Alabama and Georgia Warm and Cold Blast.	"	23.00@27.00
Central Kentucky Cold Blast.	"	23.00@26.00

All quotations in Iron, par.

Specially reported by W. B. BELKNAP & CO., Nails, Wire, Iron, Hardware, Carriage and Wagon Goods.

LOUISVILLE, Ky., Feb. 16, 1884.

The report of the market here for the past week must be purely local, as we have had scarcely any connection with the outside world. First one railroad and then another succumbed to the ever-increasing flood till the L. & N. south was the only one left open for interrupted traffic.

Bar Iron—The demand is good and we should not be surprised to see a better range of prices after the flood, which really means a two weeks stop for all the mills in the Ohio Valley.

Sheet Bands and Hoops—No quotable changes.

Nails—Are growing very scarce. Counting on resumption of work by the mills the first of this week, jobbers had let their stocks run down to the lowest possible ebb and now the flood has prolonged the stop from one to two weeks at any rate. The new card 2.60 is accepted as the probable price for a while.

Wire—There will be a large consumption of wire, as the destruction of fencing has been enormous.

St. Louis Iron Market.

Specially reported by HOPPER & CO., Pig Iron and Iron Ore, No. 214 Pine Street.

ST. LOUIS, Feb. 18, 1884.

There is little to report in the way of improvement in business. Sales are somewhat better, but not so active as expected. We continue quotations:

HOT-BLAST CHARCOAL.

Missouri.		\$19.50@20.50
Southern	"	20.00@22.00
Ohio.	"	24.00@26.00

CORE AND COAL.

Missouri.		19.50@20.50
Southern	"	18.50@19.50
Ohio.	"	21.00@23.00

MILL IRONS.

Red Short.		18.50@19.50
Neutral.	"	17.00@18.00

CAR-WHEEL AND MALLEABLE IRON.

Missouri.		19.50@21.00
Southern	"	25.00@28.00
Ohio.	"	23.00@26.00

IRON, PAR.**BRASS.**

ROLL AND SHEET BRASS.

BROWN & SHARPE'S Gauge the Standard.

New List, Jan. 15, 1884.

DIS 10@30%

COMMON HIGH BRASS.

Wider than 1/2 "		10	12	14	16	18
and including 1/2 "	10	12	14	16	18	20
To No. 20, inclusive.	.21	.22	.23	.25	.27	.29
Nos. 21, 22, 23 and 24.	.22	.23	.24	.26	.28	.30
Nos. 25 and 26.	.23	.23	.24	.24	.27	.31
Nos. 27 and 28.	.23	.24	.25	.28	.30	.32
Add 9 cts. $\frac{1}{2}$ lb. for sheets cut to particular widths and lengths.						
Add $\frac{1}{2}$ lb. additional on each number thinner than Nos. 28 to 35, inclusive.						
Brass thinner than No. 38 is Platers' Brass.						
at						
Printers' rules.						
Printers' Sheets and Plates cut to particular sizes and lengths to No. 30, inclusive.						

South. Car Wheel, strictly cold blast. 26.50@27.50

Brazing, Spinning and Spring Brass, one cent more than common High Brass. Low Brass four cts. $\frac{1}{2}$ lb. more than common High Brass. Gilding, Oreide and Bronze seven cts. $\frac{1}{2}$ lb. more than common High Brass.

SLITTING METAL.

Add to list as follows:

Over 1/2 in. to 2 in., inclusive, Nos. 12 to 20,	1/2 in. to 1/2 in., inclusive, Nos. 13 to 20,
Over 1/2 in. to 1/2 in., inclusive, Nos. 21 to 25,	1/2 in. to 1/2 in., inclusive, Nos. 22 to 26,
Over 1/2 in. and narrower, not less than 1/4 in.	1/2 in. and narrower, not less than 1/4 in.
Over 1/2 in. to 2 in., inclusive, Nos. 26 to 28,	1/2 in. to 2 in., inclusive, Nos. 27 to 30,
Over 1/2 in. to 2 in., inclusive, Nos. 29 to 32,	1/2 in. to 2 in., inclusive, Nos. 30 to 33,

PLATES' OR GOLD METAL.

Over 1/2 in. to 1/2 in., inclusive, Nos. 34 to 37,

Over 1/2 in. and narrower, Nos. 38 to 41,

Over 1/2 in. to 2 in., inclusive, Nos. 42 to 45,

Over 1/2 in. to 2 in., inclusive, Nos. 46 to 49,

Over 1/2 in. to 2 in., inclusive, Nos. 50 to 53,

Over 1/2 in. to 2 in., inclusive, Nos. 54 to 57,

Over 1/2 in. to 2 in., inclusive, Nos. 58 to 61,

Copper Pit Bottoms.....	30
Tinning extra.....	15
Brazier's Copper, 15 to 100 lb.	30
" " 10 to 12 lb.	32
" " 8 lb.	34
" " 6 lb.	36
Bolt	30
Tinning extra.....	40

Carriage and Wagon Material.

AXLES.	
Half Patent, common.....	dis. 50%
Common.....	rate 5
Concord.....	8%
BOLTS.	
Lipped, set.....	60
Bolts, Eagle.....	70
CLIPS.	
Superior Axle.....	dis. 40%
Norway.....	doz. set \$1.7
Saddle.....	
CLIP KING BOLTS.	
Nos. 1 & 2 4	
Flanged, 2 doz.....	\$2.75 3 25 4 50
DASHES.	
Leather, new list.....	dis. 5%
ENAMELED CLOTHS.	
Muslin, 2 yard, 5-1.....	22
Drill, " 50 in.....	28
Duck, " 50 in.....	28
Tail Back, " 5-1.....	40
FELLOE PLATES.	
Per lb.....	10
FIFTH WHEELS.	
Derby, 2%, 2 doz.....	\$7.50
" 2% " " 8.50	
RUBBER DUCK AND DRILL.—25% off list.	
SPRINGS.	
Seat, 1 1/2 x 2 1/2, 2 pair.....	90
Buggy, 1 1/2 in, and larger.....	10
" 1 1/2 to 1 1/2 in.....	10%
Oil-tempered springs 1c. advance from above	
SHAFT COUPLINGS.	
Discount.....	40%
MALLEABLE CASTINGS	
Rate.....	8
Core.....	12
POLE EYES AND COUPLINGS.	
Discount.....	40%
H. B. LEATHER.	
No. 1 Top, 2 ft.....	28
" 2 " " " 23	
" 1 Dash, " " 12	
" 2 " " " 10 (at 10%)	
Fancy Morocco, 2 ft.....	26
Bow, 2 ft.....	20 (at 23)
Collar, " 24	
Harness, 2 lb.....	40
STEEL PADS.	
Per doz, pair.....	\$2.25 (at 7.50)
Spokes, No. 1, 1 to 1 1/2.....	\$2.25 (at 7.50)
" X. 1 to 1 1/2.....	2.50
" XX. 1 to 1 1/2.....	3.50
Wheels, Sarver Patent.....	\$6.50 to 14.00
HICKORY FELLOES.	
No. 1.....	1 1/4 1 1/4 1 1/4 1 1/4 1 1/4
1 1/2 1 1/2 1 1/2 1 1/2 1 1/2	
1 1/2 1 1/2 1 1/2 1 1/2 1 1/2	
XX.....	3.00 3.25 3.50 3.75 4.25
HICKORY SPOKES.	
X.....	1 1/4 1 1/4 1 1/4 1 1/4 1 1/4
2 2/5 2 2/5 2 2/5 2 2/5 2 2/5	
2 2/5 2 2/5 2 2/5 2 2/5 2 2/5	
XX.....	3.50 3.50 3.50 3.50 3.75
HUBS.	
No. 1.....	5x7 6x8 7x9 8x10
90 100 135 180 200	
XX.....	5 in. and smaller. 5 1/2
2 2/5 2 2/5 2 2/5 2 2/5 2 2/5	
FINISHED SHAFTS AND BARS.	
X	XX
4.50	7.00
doz. pairs.	

PAINTS, OILS, &c.

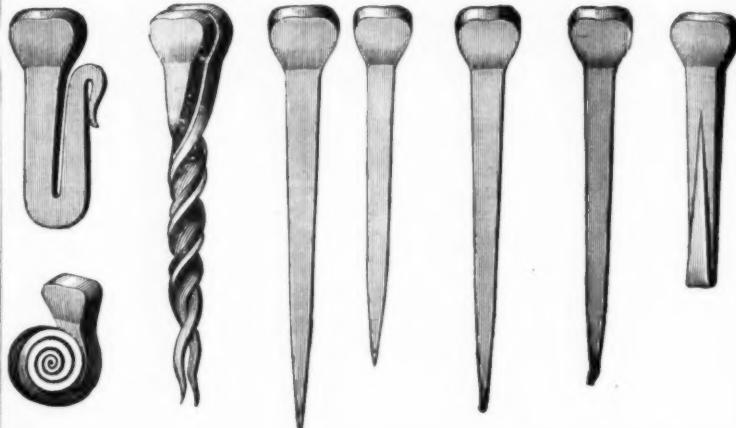
PAINTS.

Black Lamp, coach painters.....	20
Black Lamp, ordinary.....	6c
Black Ivory Drop, fair.....	12@15c
Black Ivory Drop, best.....	23c
Black Paint, in oil.....	kegs, 6c; asst'd cans, 9c
Blue Prussian, fair to best.....	40c@55c
Blue Prussian, fair to best, in oil.....	45c@55c
Blue Chinese, dry.....	70c
Blue Ultramarine.....	15@25c
Brown, Spanish.....	1c
Brown, Van Dyke.....	.5c@15c
Green, chrome.....	.8c@15c
Green, chrome, in oil.....	9c@12@15c
Green, Paris.....	good, 20c; best, 25c
Green, Paris, in oil.....	good, 20c; best, 25c
Iron Paint, bright red.....	2c@24c
Iron Paint, brown.....	2c@14c
Iron Paint, purple.....	2c@3c
Iron Paint, ground in oil, bright red.....	2c@5c
Iron Paint, ground in oil, red.....	2c@5c
Iron Paint, ground in oil, brown.....	2c@4c
Iron Paint, ground in oil, purple.....	2c@6c
Linseed Oil, raw.....	55c
Single Boiled.....	50c
Double.....	61c
Mineral Paints.....	2c@4c
Orange Mineral.....	10c
Red Lead, American.....	5c@6c
Red Venetian, (Eng.) dry.....	\$1.50 to \$1.75
Red Venetian, in oil, asst'd cans, 9c; kegs, 6c	
Red Indian, dry.....	.9c@12c
Rise Pink.....	10c@13c
Sienna, American, raw.....	4c
Sienna, burnt.....	4c@4c
Sienna, burnt, in oil.....	.8@15c
Sienna, raw, in oil.....	.8@15c
Umber, burnt.....	.6c@8c
Umber, burnt, in oil.....	.8@15c
Umber, raw, in oil.....	.8@7.5c
Vermilion, Chinese.....	.90c
Vermilion, English.....	.50@25c
Vermilion, American, common.....	15c
White Lead, American, pure dry.....	6c@6 1/2c
White Lead, American, pure in oil.....	6c@6 1/2c
White, Paris, English, prime.....	in bbls, 1 1/2@2c
Yellow Ochre, French.....	1.75
Yellow Ochre, F. ch. in oil, asst'd cans, 9c; kegs, 6c	
Yellow Ochre, American.....	1 1/2@1 1/2c
Yellow Chrome.....	.8@18c
Yellow Chrome, in oil.....	.9@12@18c
Zinc White, American, No. 1, dry.....	5c@6c
Zinc White, American, No. 1, in oil.....	9c

Copper Pit Bottoms.....	30
Tinning extra.....	15
Brazier's Copper, 15 to 100 lb.	30
" " 10 to 12 lb.	32
" " 8 lb.	34
" " 6 lb.	36
Bolt	30
Tinning extra.....	40

Zinc White, French, (Paris) dry.....	9c@2c
Zinc White, French in oil.....	10c@14c
OILS.	
Bleached W. Sperm oil.....	1 18@1 20
Nat. " " " 13@1 15	
B. W. Elephant oil.....	78c@75
" " " 75	
Prim. Lard oil.....	87c@85
Lubricating oils.....	15c@25
Miners' oil.....	7c@55
W. Pressed Fish oil.....	70c@52
Neatsfoot oil.....	65c@40
Steam-refined Cylinder oil.....	40c@35
Best Filtered " " " 45c@35	
Signal oil.....	60c@50
Paraffine.....	10c@15

Benzine.....	2 gal, 8c@10c
Turpentine.....	2 gal, 38 1/2c
Chalk.....	3c
Chalk, block.....	40c
Dryer, patent, Am'n, asst'd cans, 9c; keg, 7c	
Frostings.....	20c@30c
Glue, white.....	14c@20c
Glue, sheet.....	9c@12
Glue, ordinary.....	8c
Glaziers' Points, zinc.....	8c
Gum, Copal.....	35c
Gum, Damar.....	



The Manhattan FOR MARCH

CONTAINS:

Frontispiece. The Vase. From a painting by T. Mariano Fortuny. Engraved by Frank French.

Dartmouth College. By B. Valentine. Profusely illustrated from sketches made for the article, and photographs.

Transformation. A Story. Concluded. By Harriet Prescott Spofford.

A Farmer's Sorrow. A Poem. By Sarah Orne Jewett.

Our Forests and Tree Lore. By Laura C. Holloway.

What Came of a Kit of Mackerel. A Story. By J. H. Walworth.

A Walk in Winter. By Charles C. Abbott.

Battling on the Alleghany. By William Willard Howard. Profusely illustrated.

What Will Become of Egypt? By Gen. W. W. Loring, Pasha.

The Myth of Fingal's Cave. By Cope Whitehouse. Illustrated.

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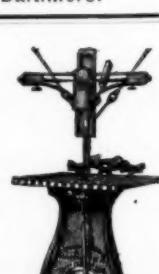
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GENTLEMEN—I will state for your information that the Timers' Soldering Tool, left at your request at this Arsenal last month for trial, has been thoroughly tested by the timer employed here. It has been found superior to the soldering iron in common use, in that the copper tip is pivoted to the iron handle instead of being rigidly fastened thereto, and can be readily turned, so that it may form any angle with the handle that the workman may desire.

With the soldering tool in common use the change in relative position of tip and handle can be made only by heating and bending the handle.

Respectfully, your obedient servant,

A. MORDECAI, Lt. Col. of Ordnance, Commanding.

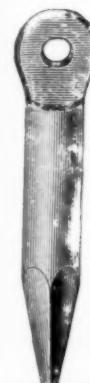
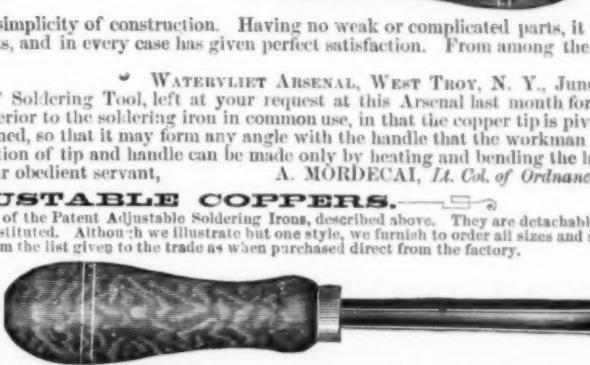
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These coppers are designed and made expressly to be used in the construction of the Patent Adjustable Soldering Irons, described above. They are detachable and when worn out, or a change is necessary, they can be removed from the handle and another substituted. Although we illustrate but one style, we furnish to order all sizes and styles of coppers. For sale by all jobbers handling this class of goods, and the same discounts from the list given to the trade as when purchased direct from the factory.

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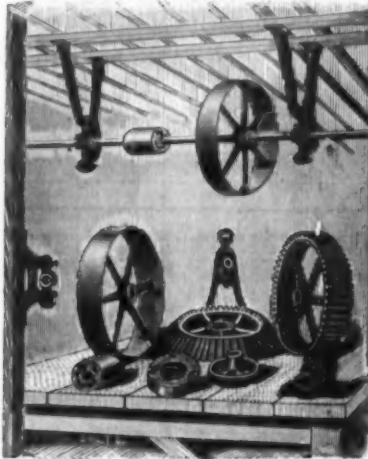
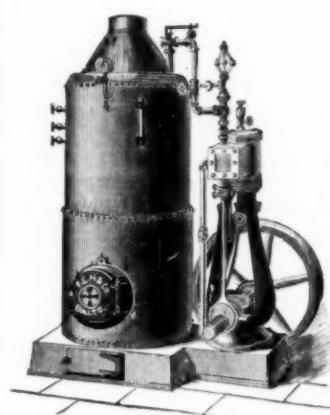
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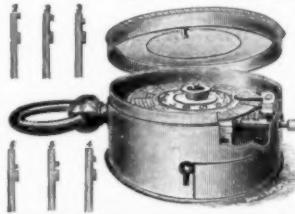


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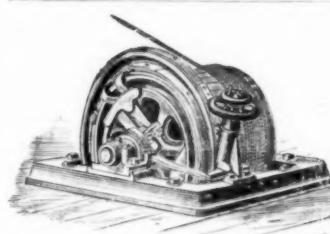


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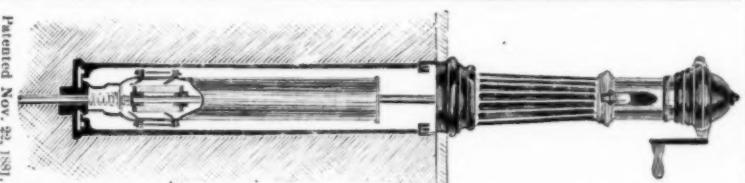
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The cheapest, strongest, most simple, compact, durable, effective and economical

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for raising liquids under and up to 100 feet. No Machinery, No Oil, No Special Care. Can be worked suspended by a chain. Will pass grit, mud, sand, pulp, etc., without injury to its parts. Needs only a steam pipe from boiler to run it. Price, 600 gallons per hour, \$50; 1,200 do. \$75; 3,600 do. \$100; 6,000 do. \$150; 10,000 do. \$175; 18,000 do. \$225; 25,000 do. \$275; 45,000 do. \$400; 60,000 do. \$500; 120,000 do. \$1,000. Compare this with any other Pump List.

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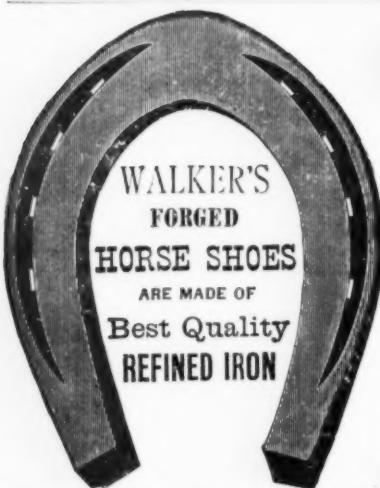
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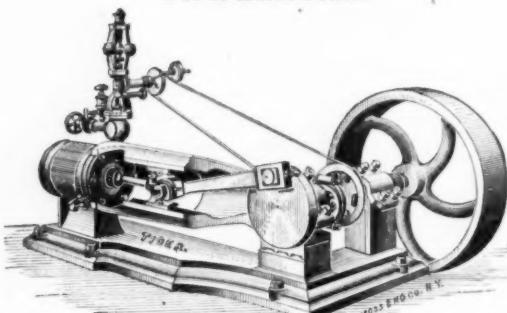
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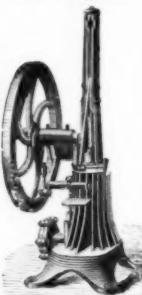


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2 to 20 Horse-Power.



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Boss, Bronze Finish.	dis 50&10%

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Zinc and Tin.	dis 60&10%
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Sliding Door, Wrought Brass.	dis 43c, dis 30%
Sliding Door, Bronzed Wrt. Iron.	dis 32c, dis 35%
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Per 100 feet.	\$2.60 3.60 5.60-dis 10%

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Small.	Med.
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RAZOR STROPS.	

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Iron and Tinned, new list, Dec. 10, 1881.	dis 45%
In bulk, new list, Dec. 10, 1881.	dis 45%
Copper Rivets and Burrs.	dis 45%
Nos. 7 8 9 10 11 12 13 14 15	
1/8 in. 49c 50c 52c 54c 56c 58c 60c 65c 70c.	

RIVET SETS.	
Stair, Brass.	dis 25%
Stair, Black Walnut.	60c, 1/2 doz.—net

RULES.	
Boxwood.	Ivory.
Chapin's.	dis 70&10% { dis 40&10% {
Standard.	dis 40&10% { dis 40&10% {
Stanley.	70 & 10. Ivory. 50%
Stevens & Co.	50 & 10.
Stevens & Co. Co. Miscellaneous.	50 & 10.

SAF IRONS.	
Self-Heating, Charcoal.	1/2 doz. \$9.00 net
Mrs. Pott's Irons.	dis 35%
Enterprise Star Irons, new list, July 20, '82.	dis 35%
Comb'd Fluter and Saf Iron.	dis \$15.00, dis 15%
Common Saf Irons.	23c, 1/2 lb.

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Baeder & Adamson's Flint.	000 1/2 \$4.50 1/2
Baeder & Adamson's Flint.	2 1/2 & 3 1/2 5.00 1/2
Baeder & Adamson's Flint, Assort'd.	4.75 1/2
Baeder & Adamson's Star.	3.75 1/2
Baeder & Adamson's Emery.	1/2 lb. \$6.50 @ 11 50

SASH CORD.	
Common.	1/2 lb. 14c. net
Patent.	1/2 lb. 17c. @ 18c. net
Silver Braided Lake Hemp.	1/2 lb. 50c. dis 10%
Silver Braided Lake White Cotton.	1/2 lb. 50c. dis 10%
Silver Braided Lake Drab Cotton.	1/2 lb. 55c. dis 10%
Silver Lake Cable Laid, Bengal unbleached Hemp.	17 cts. dis 10%
Russian Hemp.	19 cts. dis 10%
Italian Hemp.	34 cts. dis 10%

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Solid Eyes, in 500-lb. lots and over.	1/2 lb. 1 1/2 c. net
Sausage Stuffers or Fillers.	
Miles.	1/2 doz. \$30, dis 25&5%
Perry.	1/2 doz. No. 15; No. 0, \$21... dis 35%
Enterprise Mfg Co.	dis 25%
Monarch.	dis 40%

SAWS.	
Boynton's Lightning Cross Cuts, new list.	40
Boynton's Circular and Mill.	40
Boynton's Ice.	25
Boynton's Lighting Hand, Panel and Rip.	40&5%
Disston's Circular.	40
Disston's Mill.	40
Disston's Cross Cut.	40
Disston's Hand, Panel, Rip, &c.	20
Hubbard, Bakewell & Co. Cir. Saws.	40&5%
Hubbard, Bakewell & Co. Cross Cut.	30c. fl.
Hubbard, Bakewell & Co., One-Man's, X Cut.	

SAXES.	
Steel.	dis 50%; full cases, dis 50&10% 1/2
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Nickel Plated.	add \$2.50 @ 1/2 doz. net
Try Square and T Bevels.	dis 50&10%

SAW FRAMES.	
White.	1/2 doz. \$1.05, dis 10%
Saw Rods.	\$10 list, dis 10&10%

SAW SETS.	
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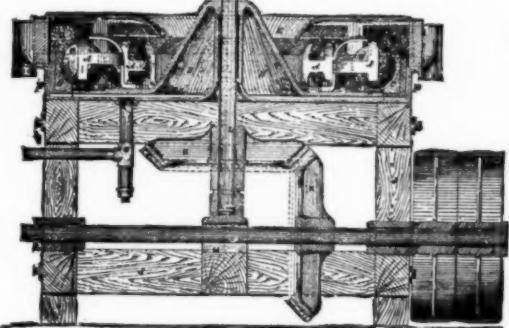
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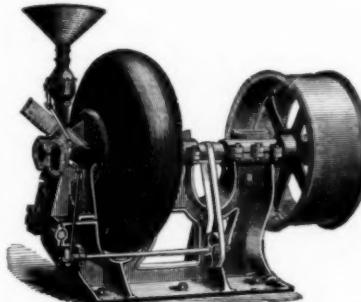
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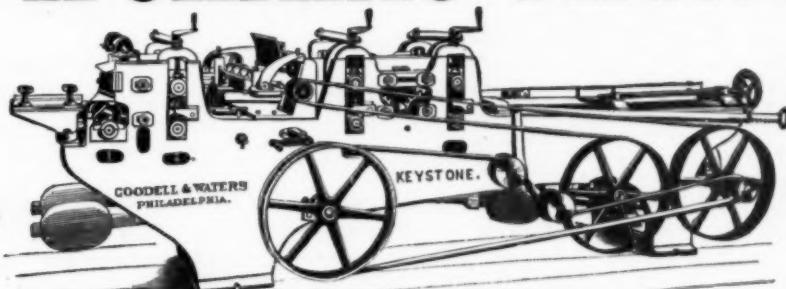
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POPULAR SCIENCE MONTHLY for March contains: From Moner to Man, by Frances Emily White, M. D. College Athletics, II, by Professor E. L. Richards, illustrated. Green Suns and Red Sunsets, by W. H. Larrabee. The Ancestry of Birds, by Professor Grant Allen. Mexico and its Antiquities, illustrated. The Remedies of Nature, Cataract, Pleurisy, Croup, by Felix L. Oswald, M. D. Study, Physiologically Considered, by P. J. Higgins. Fashion and Deformity in the Feet, by Ada H. Kepley, illustrated. On Rainbows, by John Tyndall, F. R. S. Science versus the Classics, by Professor C. A. Eggert. The Jury System, by Henry H. Wilson. The Chemistry of Cookery, by W. Mattieu Williams. Science and Safety at Sea, by Richard A. Proctor. Sketch of Ormsby Macknight Mitchell, (with portrait) Correspondence: Mosquitoes and Malaria, a reply to editorial statements. Editor's Table: Collegiate Influence upon the Lower Education. Literary Notices, Popular Miscellany, Notes.

LIPPINCOTT'S MAGAZINE for March contains: The Berlin of To-Day, by Anna Maynard Butler, illustrated. Selina's Tangled Web, a story, concluded, by Lizzie W. Champney. Across the Isthmus of Tehuantepec on Horseback, by Laura King Swartz, illustrated. The Brown Lady, a story. A Winter Campaign in the Black Hills, by H. H. B. The Perfect Treasure, four parts.—I, by F. C. Baylor. Healthy Homes, III, Rooms and Halls, by Felix L. Oswald. An American Father Mathew, by the author of "Study and Stimulants." Washington's Head-Quarters, a story, by Hope Ledyard. My Dogs, by A. D. C. The Home of Nast, by Mary Dean. J. B. Lippincott & Co., publishers, Philadelphia.

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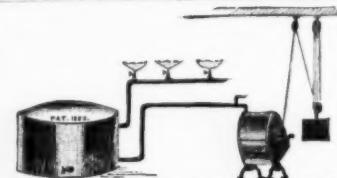
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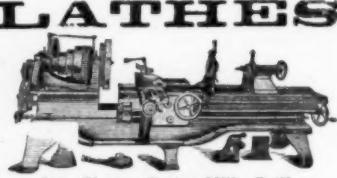
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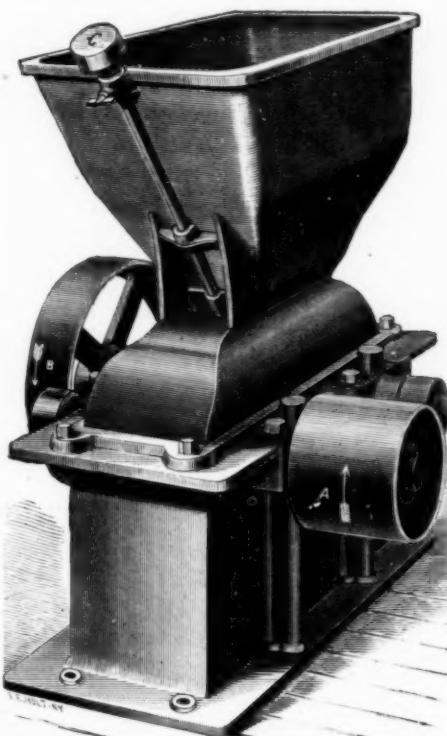
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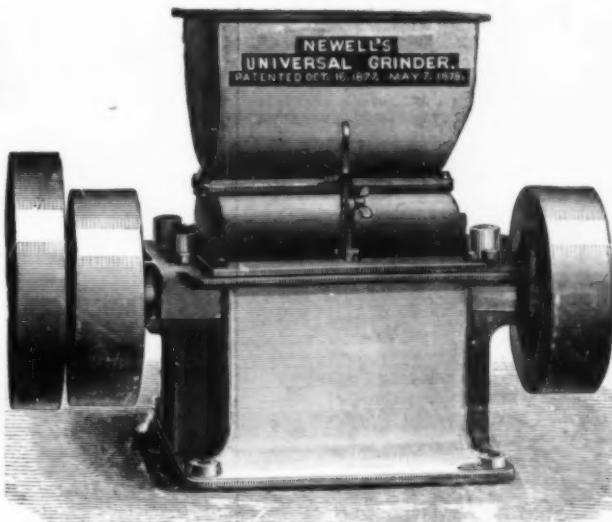
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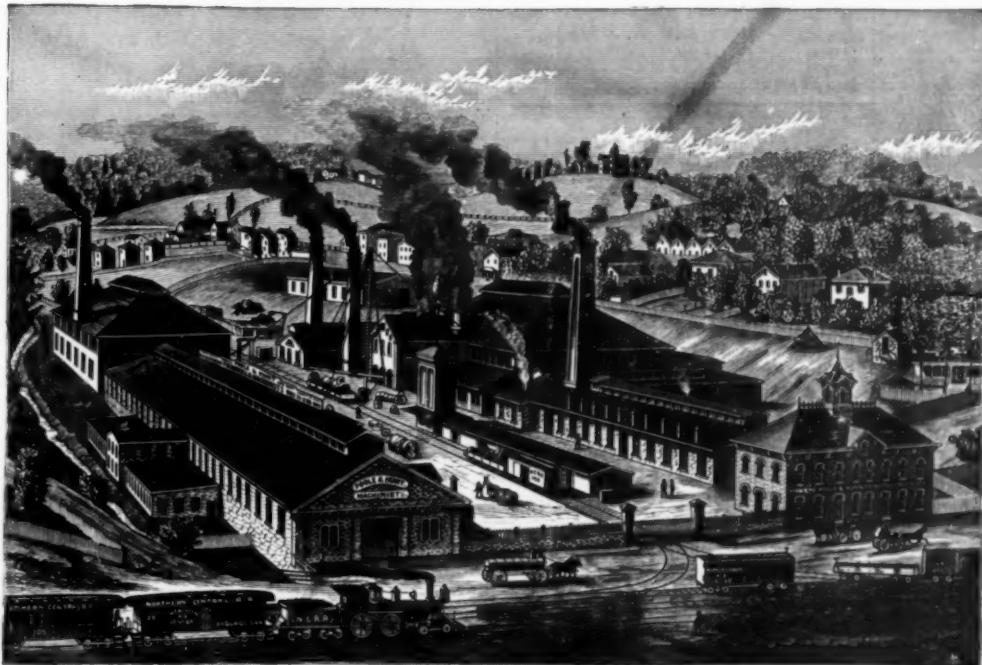
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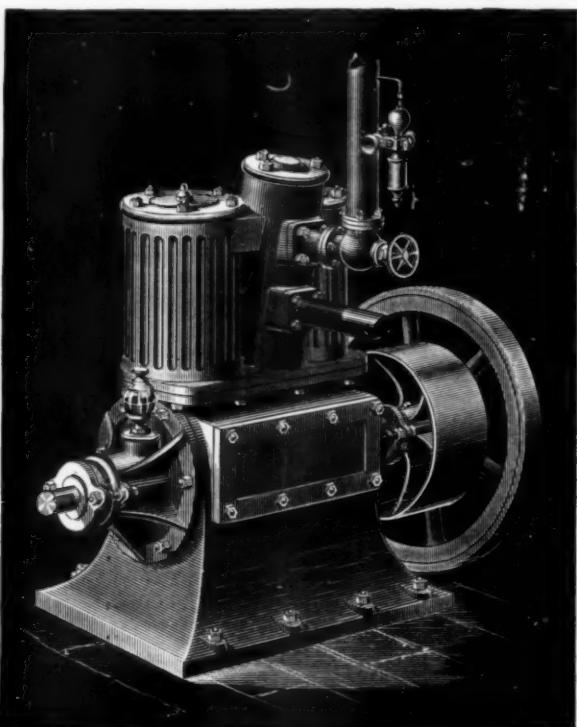
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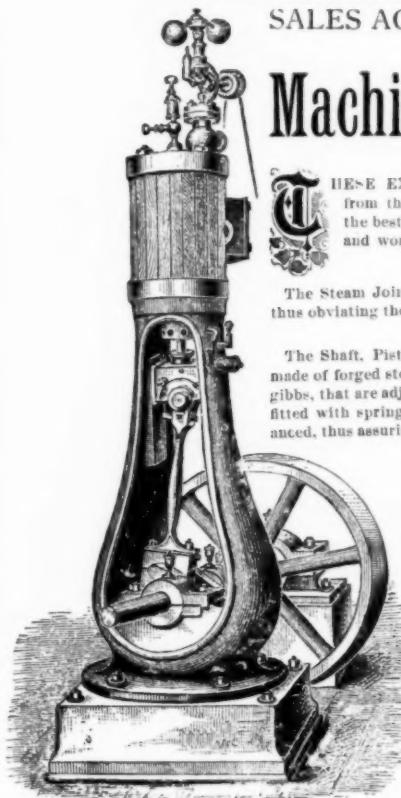
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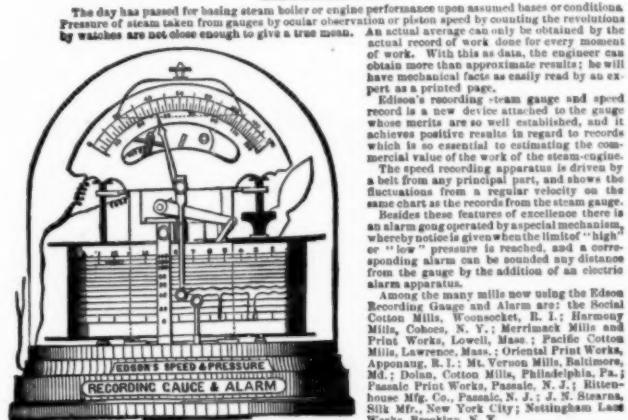
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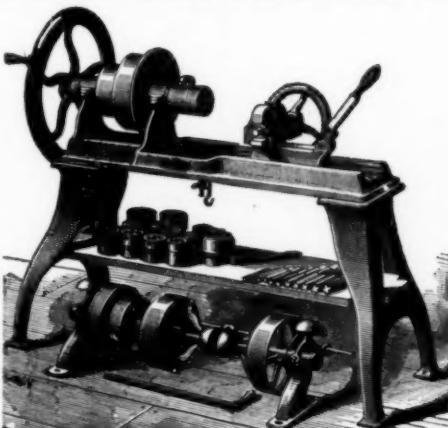
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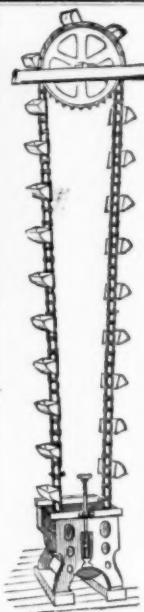
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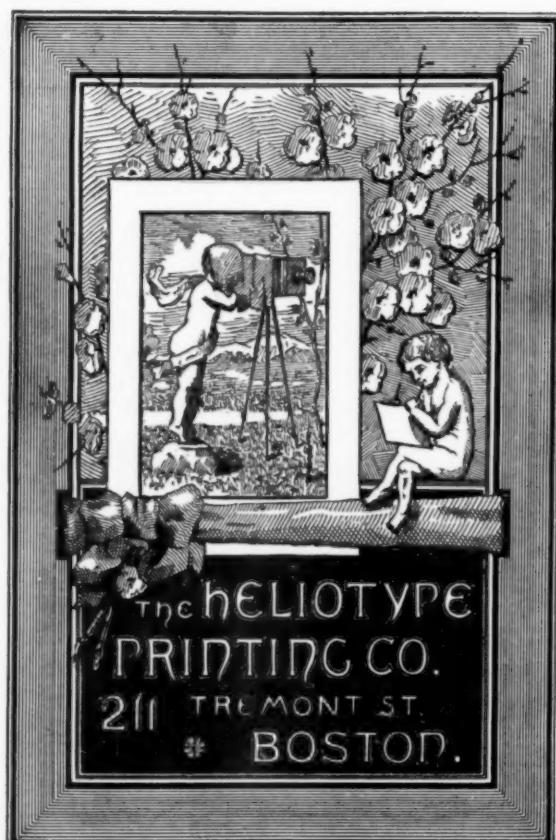
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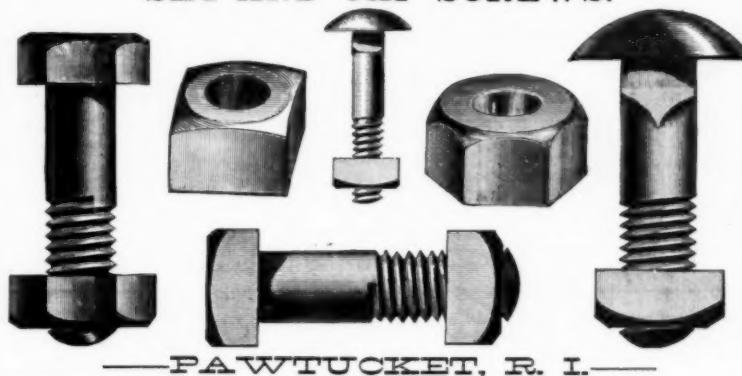
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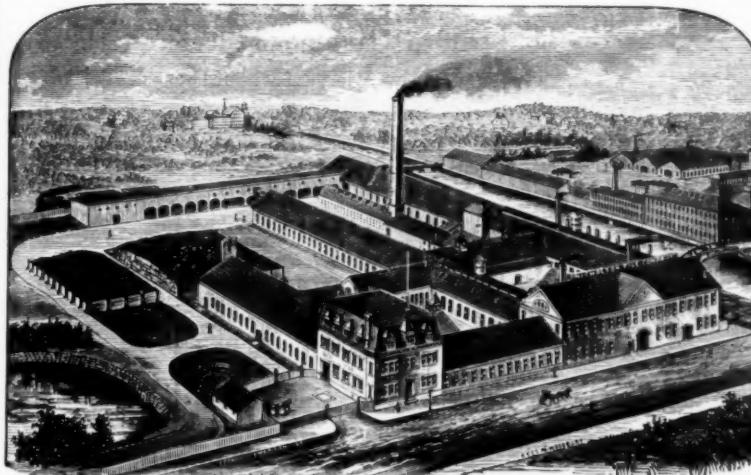
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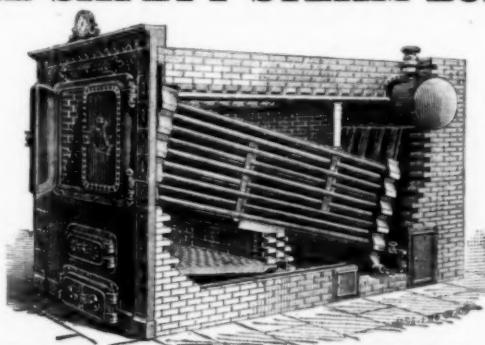
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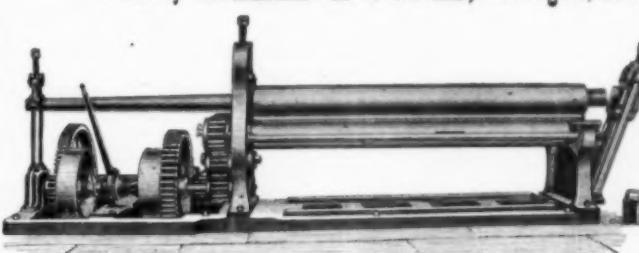
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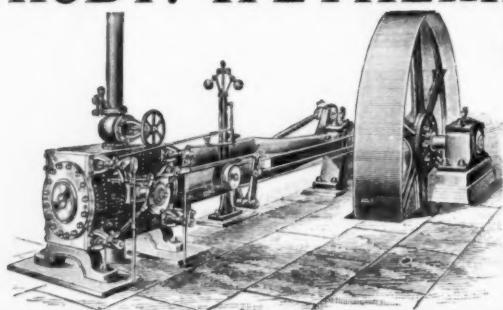
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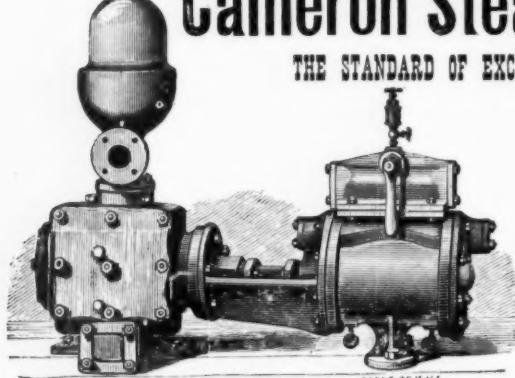
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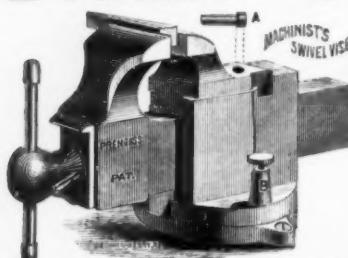
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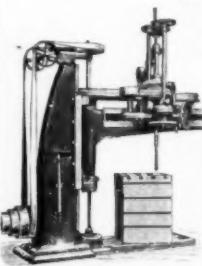
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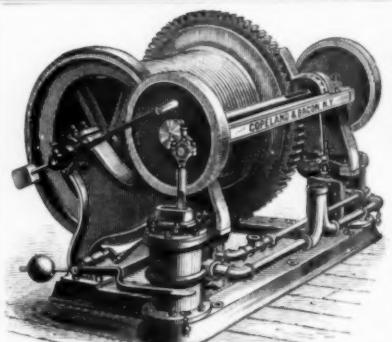
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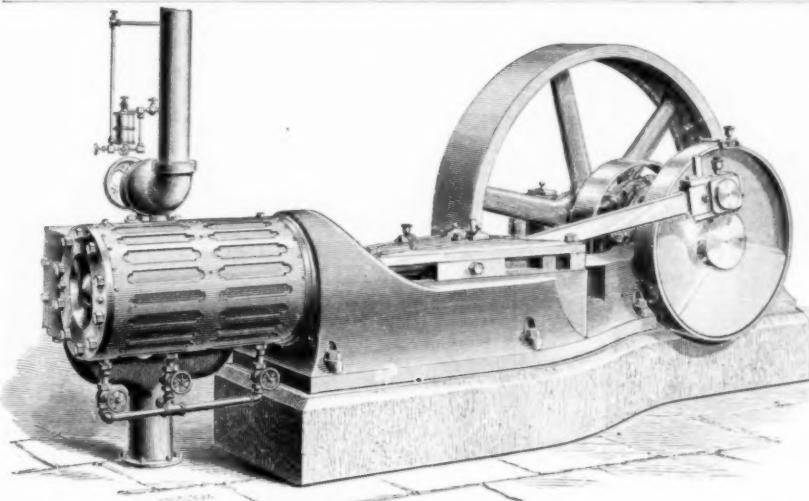
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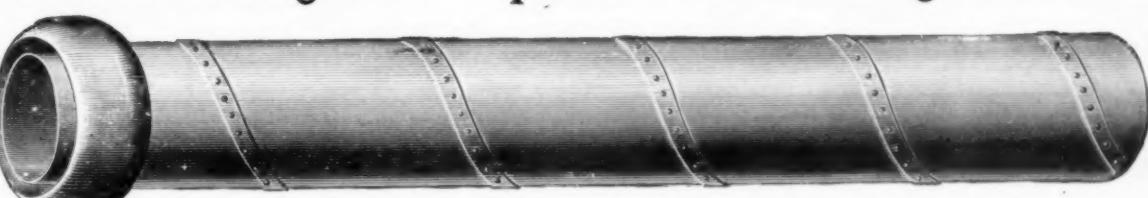
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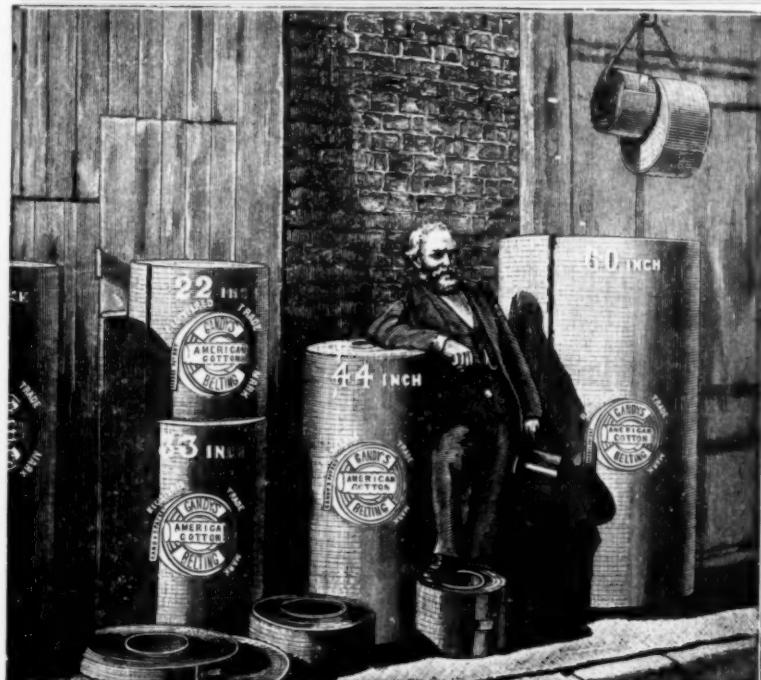
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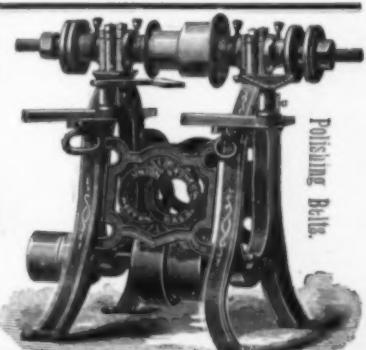
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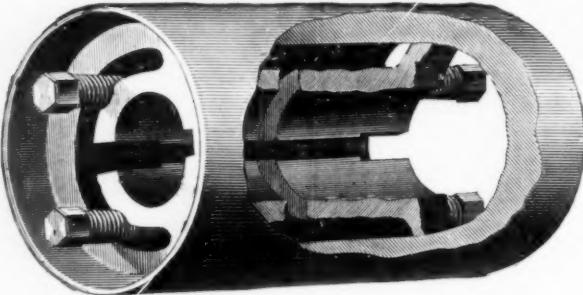
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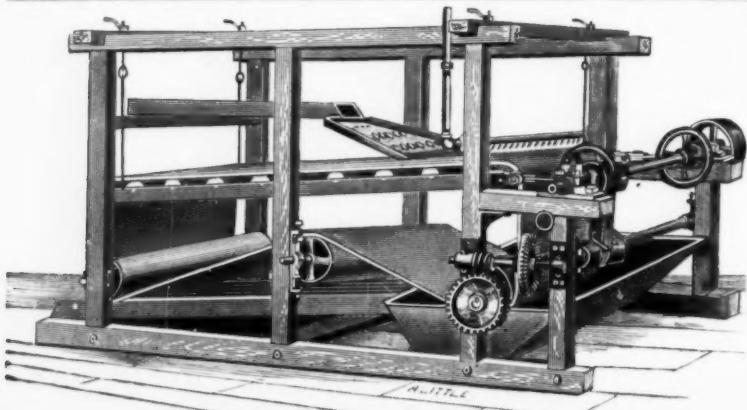


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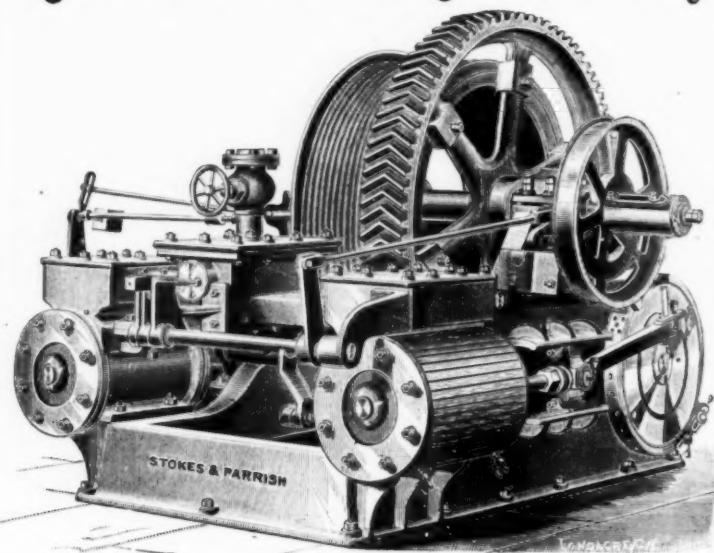
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